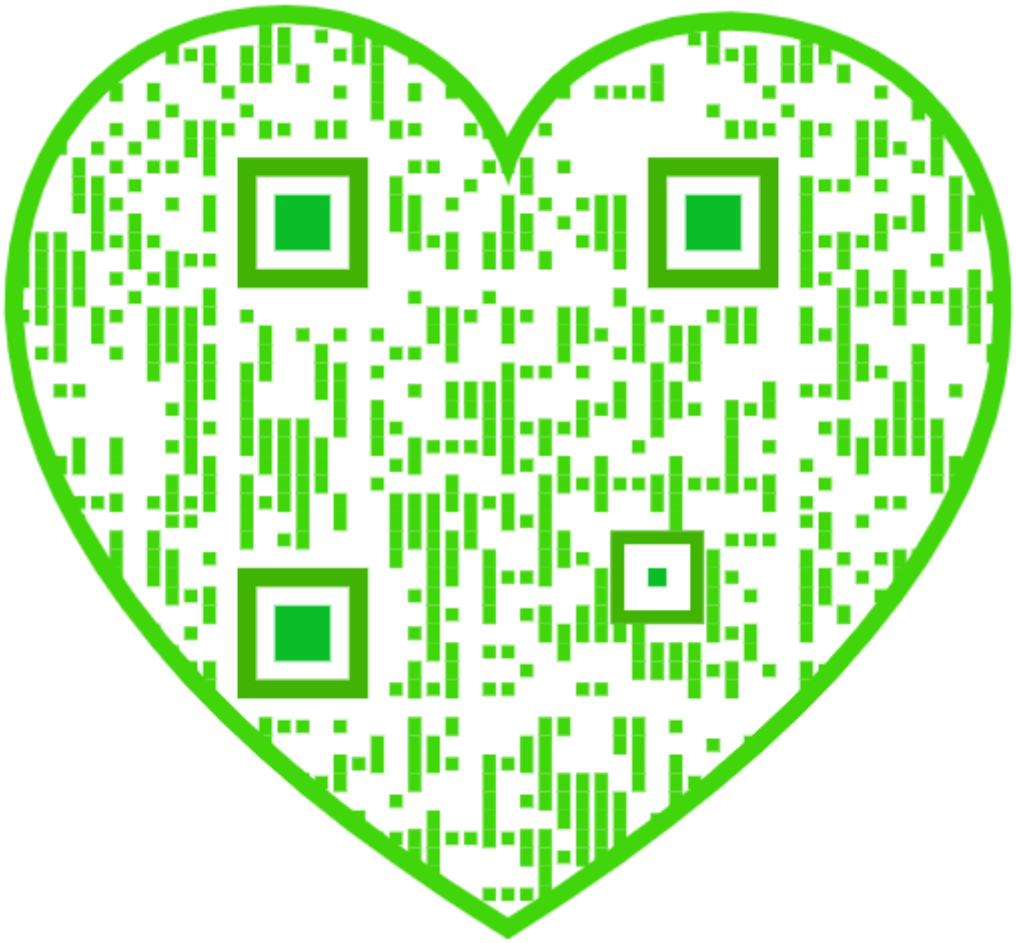
RM 130
.C3
Copy 1



Class RM130

Book .C3

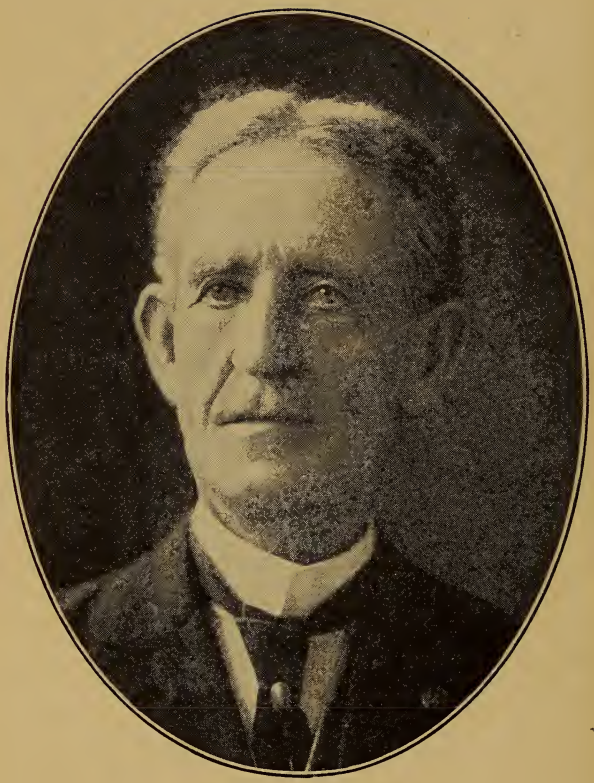
Copyright No.

COPYRIGHT DEPOSIT.

23

QH 324 .S49-E

THE CHEMISTRY OF HUMAN LIFE



ADVENT SEPT. 7. 1845

Faithfully Yours.

George W. Corey.

The Chemistry of Human Life

The Biochemic Statement of the Cause of Disease and the Physiological and Chemical Operation of the Inorganic Salts of the Human Organism and their Chemical Formulas

By
DR. GEORGE W. CAREY
Author of Text Booke on
The Chemistry of Life

Published by
THE CHEMISTRY OE LIFE CO.
Los Angeles
1919

RM130
C3

Copyright, 1919
by
DR. GEORGE W. CAREY
Les Angeles, Cal.

FEB 26 1919

©CL.A511930

TABLE OF CONTENTS

THE CHEMISTRY OF WISDOM 7
A WORD FROM THE CHEMISTRY OF LIFE 9
BIOCHEMISTRY—THE STONE THE BUILDERS REJECTED 11
FUNDAMENTAL PRINCIPLES 14
BIOCHEMISTRY AND THE BIOCHEMIC PATHOLOGY 16
THE CHEMISTRY OF BLOOD AND TISSUE 17
CELLULAR PATHOLOGY 21
THE VIEWS OF SCIENTISTS 23
THE BIOCHEMIC PATHOLOGY OF EXUDATIONS, SWELLINGS ETC. 26
CHEMICAL OPERATION 28
MAN'S DIVINE ESTATE 29
INTUITION, OR THE INFINITE VIBRATON 31
THE SO-CALLED ELEMENTS 33
ESOTERIC CHEMISTRY 35
THE FALLACY OF THE GERM THEORY OF DISEASE 37
DIPHTHERIA 46
CHOLERA 48
PNEUMONIA 51
LESSON I 53
LESSON II 56
LESSON III 58
LESSON IV 60
LESSON V 63
LESSON VI 64
LESSON VII 66
LESSON VIII 68
LESSON IX 71
LESSON X 73
LESSON XI 75
LESSON XII 77
THE COMING MAN 78

THE CHEMISTRY OF WISDOM

A STATEMENT OF BEING

LIFE is omnipotent, omniscient and omnipresent.

Being all, life must be wisdom. So, then, it follows, that all forms, appearances, and so-called matter must be life or wisdom in that form of expression.

"Ye are the salt of the earth, but if the salt have lost his savour, wherewith shall it be salted? It is thenceforth good for nothing but to be cast out and to be trodden under the foot of men."

God made man from the dust (or mineral) of the earth.

God made of *one* blood, all persons.

"The blood is the life."

"The life of the flesh is in the blood."

"Thou art Peter (Petra-stone or mineral), on thee will I build my church and the gates of hell shall not prevail against it."

The above words are simple statements of chemical and physiological facts.

The mineral salts of the human organism are intelligent entities, and work under divine guidance which man has designated as chemical affinity.

The molecules of iron, lime, magnesia, potash, etc., must have certain substances to work with, such as albumen, fibrin, oxygen, water, etc., or they *cannot* work, that is, "They have lost their savour," or substance.

The mineral salts are the base of the blood and good blood is the product of a proper balance of the dynamic molecules. Poor, or imperfect blood, is the product of a break in the molecular chain of the salts. Having "lost the savour," some of the salts are good for nothing, etc., and hence the deficiency that causes so-called disease.

A thing is valuable only as it can be used. If the salt loses its savor, wherewith shall it be salted?

The mineral salts may be present in the system, but we, through ignorance of nature's laws, may do that which will cause them to become of no value in the construction of the body. Not that the cell-salts themselves are changed in any way, but that the fluids of the body have become non-functional.

Science has proved that emotions of anger, fear, sorrow, etc., generate poisons in the human laboratory. Thought is the controller of the emotions. Therefore, our wrong thoughts, working through the emotions, have caused the fluids of the body to become poisoned or vitiated and thus thrown out of harmonious relation to the cell-salts, which cannot use non-functional oil, albumen, etc., in a manner to produce that harmonious condition called health.

This great chemical fact emphasizes the necessity of carefully guarding our thoughts, and makes plain the statement of Holy Writ: "As a man thinketh in his heart so is he."

Church, temple, house, etc., are derived from the Hebrew, Beth, and in the Scriptures these words are used to designate the human body. On petra, stone or mineral, the body is built.

Hell, hades, means stomach, and is derived from the fifteenth letter of the Hebrew alphabet, Samech.

Food is digested in the stomach and intestinal tract to furnish force, also to set free the mineral or cell-salts, and these remain *intact* and are *not in any manner changed;* therefore, "The gates of hell (grave or stomach) do not prevail against them."

The chemistry of the Old and New Testaments proves that the books were written by Masters.

The wisdom of the ages has produced none greater.

Disease Nature's Efforts to Restore Equilibrium

DISEASE is an alarm signal, a friend who calls to inform us of danger. Disease is an *effort to prevent death.*

Therefore, pain and so-called disease is more than a warning; it is an effort that opposes death. The symptoms that indicate disease are calls, or dispatches, asking for the material with which the repair of bodily tissue may be made. Pains or discomforts of various functions or structure of the body are *words* asking for the constituent parts of blood, nerve fluids, tissue, bone, etc.

If acids cause pain, the pain is a call for a sufficient amount of alkaloid salts to counteract an acid effect and change fluids to a bland and natural state.

Healthy synovial fluid (fluids of the joints) is neither acid nor alkali, but yet contains both in combination. Should the alkaline salts become deficient in amount, for any cause, the acid at once becomes a disturbing element and hurts the nerves that pervade the membranes of the periosteum (bone covering) of the internal structure of the knee, elbow or other joints of the human anatomy. This pain, or word, can not be considered bad or malignant in any sense.

All phenomena appears as a result of Divine, beneficent law, hence disease so-called is the result of the orderly procedure of that law. In all ages all men and women have been sick more or less. In all ages there have been storms, cataclysms, earthquakes and extremes of heat and cold; no one questions the wisdom that causes, guides and directs these events, then why should we question the wisdom of disease? Disease is one phase of the transmutation of matter in the procedure of regeneration.

All methods of healing are phases of the transmutation process.

When man reaches the plane of understanding (Alchemical Knowledge) he will consciously co-operate with the *Divine Urge by supplying* his dynamic laboratory with the mineral base of the blood (the *Philosopher's Stone*), and thus make blood the "Elixir of Life" as it is destined to be.

Consider Biochemistry, thou invalid, study her truths, practice her precepts and you will obtain wisdom, and realize that you are a worker in the plan of regeneration.

BIOCHEMISTRY

"The Stone the Builders Rejected"

"I know perfectly well my own egotism;
I know my omnivorous lines,
And will not write any less,
And would fetch you, whoever you are, flush with myself."

—Walt Whitman.

THE constituent parts of man's body are perfect principles, but the principles are not always perfectly adjusted.

The planks, bricks, or stones with which a building is to be erected are composed of perfect principles, namely, oxygen, hydrogen, carbon, lime, iron, silica, potassium, magnesia, etc. These principles or elements are eternally perfect *per se,* but may be endlessly diversified in combination.

The stone which the builders rejected is symbolized by the stone which the builders of the pyramid of Cheops failed to place in position on the *top corner*—the pyramid being five-cornered, one corner pointing upward, and representing the sense of seeing—so the builders of the science of medicine have failed to place the mineral basis of blood—the inorganic salts—in their place in the human structure or fleshly pyramid.

When these mineral (stone) principles, or elements, are perfectly placed in the chemical formulae which composes the blood, the animal functions proceed in harmonious operation. When for any reason these cell-salts, stones, are deficient or negative or dormant or get misplaced, i. e., out of combination, the stone which must become the head of the corner has been rejected by the chemistry of life builders.

The human body, or pyramid, is a storage battery, and must be supplied constantly with the proper elements—chemicals—to set up motion or vibration at a rate that will produce what we please to call a live body. A failure to keep the storage battery supplied with the chemical base of blood causes a disturb-

ance in the operation of the chemical action of the blood, the effect of which is called disease. To give names to these effects is the insanity of science.

The word Peter, or Petra, means "A rock." "Thou art Peter; on this rock will I build my church."

This statement, or word, represents the creative or formative principle defining the human organization. The twelve cell-salts of the body are stones, i. e., minerals, which on combination may be called a rock. These minerals, or rock, attract by chemical affinity the aerial elements, and by their union—chemical operation—the oil, albumen, fibrin, etc., which build up the human structure are formed and changed into bone and other tissue of the body, and thus build the beth, or church of God; the true church of God is the body.

The alchemists of old, whom we in our blindness have imagined were religious teachers, understood the real meaning of the statements: The human body is the temple of the living God; and again, the Holy Ghost dwelleth in you, and the kingdom of heaven is within you, and Our Father, who art in heaven. A temple and a church or beth (Beth-el) mean the same. Solomon's temple is a myth, an allegory or symbol of the human body, the temple of the living God. Originally it was the soul of man's temple, or the temple for the soul. Thus we can understand how the temple is built "without the sound of saw or hammer."

The seers, scientists, and alchemists of the early centuries of the Pisces, or water age, into which the sun and solar system entered about 2200* years ago, realized that, for about that period the inhabitants of the earth—souls in flesh—would be a lost race; that, while the earth was down deep in the Pisces air, dense and watery, the material thought would cognize from the individual concept, being so environed that the unity of being could not be realized.

A lack of the knowledge of the unity or completeness of being, or the perfection or completeness of the body, or temple of being, was symbolized by the allegory of the temple or

* The solar system entered Aquarius, an air sign, about the year 1900. Aquarius is "the Sign of the Sun, or Son, of Man in the heavens."

pyramid, the capstone rejected—or not yet placed in proper position.

The mineral salts—rock foundation of the human structure—have been rejected by the medical builders for 2,000 years or more, but are now, as the earth swings into the air age, or the age of Spiritual Man, being recognized as the "Head of the Corner."

Thus we see why the beautiful name, Biochemistry, has shone forth from the slowly crystallizing carbon of dead and dying isms and pathies, and now glitters like a diamond in the crown of science.

Biochemistry is the "stone the builders rejected."

FUNDAMENTAL PRINCIPLES

HERE are a few questions and answers that will enable the patient to grasp the fundamental principle of Biochemistry:—

First. What are the remedies you use? Answer—The inorganic salts, as found in healthy human blood.

Second. What is the meaning of Biochemistry? Answer—The chemistry of life.

Third. Where are the inorganic salts found? Answer—In all nature. In the food we eat; in the earth, rock, soil, and vegetable, and especially noticeable in mineral springs.

Fourth. Then why need we take them as medicine? Answer—You need not take them as medicine. No medicine, in the common use of the word, is or can be needed; they are taken as food, to supply a deficiency.

Fifth. Why does a deficiency occur, if the food we eat contains the mineral salts? Answer—Because the digestion and assimilation sometimes fail to set them free from the organic parts of the food, so that the absorbents can take in a sufficient quantity to keep the blood properly balanced; or some extra demand has been made upon the system—overwork, physical or mental, atmospheric or electric changes, etc.—which have too rapidly consumed the vitality of the body. It is then Biochemistry comes to the rescue. The inorganic vitalizing principles of food, having been set free by chemical process, or prepared direct from the mineral base, are given as a remedy, and are taken in by the absorbents at once, not passing through the process of digestion at all, as they are ready for the blood when taken.

There is no such thing as disease, therefore, there cannot be any cure, as commonly understood. The symptoms called disease and named in Latin or Greek, so that the masses are awed and frightened by them, are not things or entities—are not something to be combatted, but are simply and only the words,

the dispatches, the language nature employs in calling for that which is lacking.

Do you see the difference between something and the lack of something?

"Yes," you say, "but people die from these words, dispatches, language, as you put it." Answer—Let us illustrate: A man goes without food for three days and nights, and has pains, fevers, headache, etc., but you know he is not "possessed of something," but lacks food. You also know he will die if the food is not supplied; but the words or dispatches calling for food will not kill him, but he will die because of a lack of food. You know this, and give him food; but, if you did not know it, you would proceed, according to the old pathology, to try to cure the pain, fever, or headache with some poison. "He asked for fish, and ye gave him a serpent."

BIOCHEMISTRY AND THE BIO-CHEMIC PATHOLOGY

A shadow cannot be removed by chemicals, neither can disease be removed by poisons. There is nothing (no-thing) to be removed in either case; but there is a deficiency to be supplied. The shadow may be removed by supplying light to the space covered by the shadow.

So symptoms, called disease, disappear or cease to manifest when the food called for is furnished.

The human body is a receptacle for a storage battery, and will always run right while the chemicals are present in proper quantity and combination, as surely as an automobile will run when charged or supplied with the necessary ingredients to vibrate or cause motion.

There can be but one law of chemical operation in vegetable or animal organisms. When man understands and co-operates with that life chemistry, he will have solved the problem of physical existence.

When the arteries contain a sufficient quantity of the cell-salts, the aerial elements that form the organic portion of blood are drawn into them by chemical affinity or magnetic attraction, and precipitated or concentrated to the consistency that forms the substance known as blood.

The quality of blood depends entirely upon the chemical mineral base. If one or more of the inorganic salts are deficient in quantity, the blood will be deficient in vital or magnetic vibration and cell and tissue-building substance.

And so to supply the organism with the mineral principles that form the positive pole of blood is the natural law of cure.

Lymph and the lymphatic system is a part of the complex wonderful operation in the process of transmuting *the etheric substance*—aerial elements—into blood, flesh, and bone.

Biochemistry has been and is now being recognized by the most advanced thinkers the world has known.

THE CHEMISTRY OF BLOOD AND TISSUE

THE word Biochemistry is formed from *bios,* the Greek for life, and chemistry. Webster defines chemistry as that branch of science which treats of the composition of substances and the changes which they undergo. Therefore, Biochemistry, taken literally, means that branch of science which treats of the composition of living substances, both animal and vegetable, and of the process of their formation. But usage has given the word a somewhat different signification, and the following is a more accurate definition: That branch of science which treats of the composition of the bodies of animals and vegetables, the processes by which the various fluids and tissues are formed, the nature and cause of the abnormal conditions called disease, and the restoration of health by supplying to the body the deficient cell-salt.

The chemical composition of tissue and the various fluids have long been known, but, until Biochemistry was introduced, no practical use had been made of this knowledge in the treatment of the sick. The so-called science of medicine has no claim to the name, science. We refer to the old system that treats disease as an entity—a something, or at least caused by a something instead of a deficiency, which all will admit to be a lack of something. It is useless for those who adhere to the practice of the drug system to try to defend it. We have the testimony of many of their most noted professors and authors, that their "system of practice is responsible for more deaths than war, pestilence, and famine combined."

We realize that modern surgery is an exact science. Like watch making or house building, it is purely mechanical. In anatomical exactness, and in instruments of precision, the advances in surgery during the past fifty years have been marvelous.

While the diagnosis of disease by surgeons is many times at fault, sometimes fatally so, yet their mechanical operations are beyond criticism.

Homeopaths builded better than they knew. In preparing their high potencies, they eliminated the poison contained in such drugs as aconitum and belladonna, and left only the inorganic cell-salts which supply deficiencies when correctly selected. But this subject is dealt with in the book, "The Biochemic System of Medicine," which every student of course reads.

Biochemistry is science, not experimentalism. There is no more of mystery and miracle about it than about all natural laws. The food and drink taken into the stomach and the air breathed into the lungs furnish all the materials of which the body is composed. By the juices of the stomach, pancreas and liver, the food is dissolved, and the cell-salts are taken up by the absorbents and carried to the lungs, where they unite with the aerial elements and make blood.

When we realize that there is as much matter thrown out of the body in twenty-four hours as is taken into it, we see that flesh is not formed from the food we eat.

Oil taken into the stomach can not possibly reach the tissue as oil, simply because it passes through a metamorphosis from the action of the gastric juice, bile and pancreatin.

The blood supplies the material necessary for forming every tissue and fluid in the body, and for carrying forward every process in the operation or materialization of the human form.

An analysis of the blood shows that it contains organic and inorganic matter. The organic constituents are sugar, fats and albuminous substances. The inorganic constituents are water and certain minerals commonly called cell-salts or tissue builders. Of a living human body water constitutes over seven-tenths, and cell-salts about one-twentieth, organic matter the remainder.

The writer was among the first scientists in the world to advance the theory (now a demonstrated scientific truth) that the organic portion of all vegetable and animal matter, the oil, albumen, fibrin, etc., is *formed by a combination of aerial*

elements which make up what is known by the general term atmosphere. Food taken into the system is not changed to flesh and bone, but acts as a negative pole, as explained in the following extract from one of my lectures:—

"The commonly-accepted idea that vegetation is a product of soil, that it absorbs from the earth the material that builds the structure of the plant, and that animal tissue is built up by a metamorphosis of this vegetable substance into flesh and bone, has been proven erroneous.

"Chemistry and the spectroscope prove that *vegetable* and *animal tissue is precipitated air.*

"It is well known by chemists that all manner of fruits, grains, and vegetables are produced directly from the elements in the air, and not from the soil. The earth, of course, serves as a negative pole, and furnishes the mineral salts of lime, magnesium, iron, potassium, sodium, and silica, which act as carriers of water, oil, fibrin, sugar, etc., and thus build up the plant. But the oil, sugar, albumen, etc., are formed by a precipitation of principles in the air, and not from the soil. This is a fact abundantly proven. M. Berthelot, a scientist of France, Tesla, the Austrian wizard, and our own Edison have long held that food could be produced artificially by a synthetic process from its elements. Some six or seven extracts, as well as coloring material, are now being manufactured in this manner. Madder is now made almost exclusively by this process.

Long ago I advanced the theory that animal tissue is formed from the air inhaled, and not from food. The food, of course, serves a purpose; it acts as the negative pole, as does the earth to plant and vegetable life, furnishes the inorganic salts, the workers that carry on the chemistry of life, and sets free magnetism, heat, and electric forces by disintegration and fermentation of the organic portions of the food. But air, in passing through the various avenues and complex structure of the wonderful human organism, changes, combines with the mineral salts and solidifies, until it is finally deposited as flesh and bone."

But in order to transpose air—the universal substance in which we "live, move, and have our being"—into flesh, water and the twelve salts have a special work to do. Should a de-

ficiency occur in one or more of these workers, an abnormal condition arises.

Not until recently were the inorganic cell-salts understood and appreciated. Being little in quantity, they were supposed to be little in importance. But now it is known that the cell-salts are the vital constituents of the body, the workers, the builders, that water and organic substances are material used by these workmen to carry on the cellular operation in the human organism that underlies and forms the basis of all animal or vegetable tissue. Should a deficiency occur in one or more of these twelve workmen, abnormal conditions arise. These abnormal conditions are known by the general term disease, and accordingly as they manifest in different ways and in different parts of the body, they have been designated by various names. But these names totally fail to express the real trouble. Every disease which afflicts the human race is due to a lack of one or more of these inorganic workers. Every pain or unpleasant sensation indicates a lack of some constituent of the blood.

Having learned that disease is not a thing, not an entity, animate or inanimate, but a condition due to a lack of some inorganic constituent of the blood, it follows naturally that the proper method of cure is to supply to the blood that which is lacking.

In the treatment of disease, the use of anything not a constituent of the blood is unnecessary, and to give poison to a sick person is barbarous and inhuman. True, many have survived such treatment, but equally many have been hurried to their graves.

Biochemistry would seek to ascertain what is lacking in disease, and supply it in just the form needed.

CELLULAR PATHOLOGY

ALL diseases that are curable are cured in a natural manner through the circulation; the constituent parts of the human organism, which are carried by the blood vessels and transude through the walls of these "branches of the tree of life" into the surrounding tissue, restore normal conditions when the blood contains the proper amount of water, sodium, ferrum, potassium, calcium, magnesia, and silica.

Deficiencies in the cell-salts produce pains, fever, spasms, or some other cry of distress. These so-called symptoms are words, or dispatches, calling for what is needed. And when the call is for the phosphate of potassium to supply nerve cells, shall we give morphine? "He asked for bread, and ye gave him a stone."

When the call is for the phosphate of iron, in order that more oxygen may be conducted through the organism, and thereby increase vitality, shall we give alcohol? "He asked for fish and ye gave him a serpent."

It will be observed that there is nothing miraculous about the biochemic procedure—it is simply natural law.

The constituents of our bodies, planned by Infinite Intelligence, keep all parts of its wondrous mechanism in harmonious co-ordination when present in proper magnitude and amount. Harmony cannot be obtained when deficiencies exist by introducing a poison into the system.

The symptoms may be changed to those that manifest differently, but the patient is not cured.

Calomel does not cure; it simply sets up a diarrhoea in place of constipation. Opium does not cure; it sets up paralysis of nerve centres in place of neuralgia (Greek and Latin for nerve pain).

We do not claim magical curative properties for the bio-

chemic *materia medica*. We only point out the law of the chemistry of life.

Is there any system of teaching or practice before the world to-day that can be said to present the law of cure as full-rounded and many-sided, clear, explicit, without evasion or ambiguity, as does the science of Biochemistry?

Let the sick bear in mind that there is but one way to be restored to health, and that is the *natural* way: through the blood by *supplying deficiencies*. It will require just as much time to cure as nature requires, working in a *natural* way. The food or workers called for *must* be supplied; calomel, aconite, belladonna, salicylic acid, opium, etc. (we do not refer to the homeopathic triturations of these drugs) are not constituent parts of blood, are not found in the human organism naturally, and, when taken into the system, set up their own vibration or action, in place of the condition naturally produced by a deficiency in the component parts of the organism, and are worse than the disease for which they are given. When a twig is broken from a branch, we know a new one will grow again to the same size, if water is supplied to the soil and conditions favorable to its growth are furnished; we do not expect to supply a new growth by legerdemain, or some short cut—say by putting an "active poison" about the roots of the tree—or injecting beneath its bark a nameless lymph wherein sport the festive bacilli and all-pervading microbes.

We realize the branch must be restored in a natural manner by the constituent parts of the tree, operating or circulating through the physiology of the tree, and thus carrying on the process of growth.

THE VIEWS OF SCIENTISTS

PROFESSOR VIRCHOW, in his lecture on "Cellular Pathology," says (see lecture 14) "the cells of the organism are not fed, they feed themselves. The absorption of matter into the interior of the cells is an act of the cells themselves."

Alfred Binet, a noted French scientist, says, in his work, "The Psychic Life of Micro-organism"; "The micro-organisms do not nourish themselves indiscriminately, nor try to feed blindly upon every substance that chance may throw in their way. The microscopic cellule in some manner knows how to choose and distinguish alimentary substances from particles of sand."

So I am led to believe that the cells are intelligent organisms and can choose their nourishment. This being the case, how foolish, if not criminal, to place only a poisonous agent within their reach.

As the researches of Binet, the French scientist, show that micro-organisms—infusoria—select their own food from the material at hand, so does the Pomeranian scientist, the great Virchow, clearly demonstrate that the cells that build the human form divine also select their nourishment from material within reach, and that nothing foreign to their constituent parts can be forced upon them—except to produce injury or death. Professor Virchow's researches demonstrate the fact that abnormal cells are caused by a lack of the chemical constituents that are required to produce normal cells.

The renowned Dr. Schuessler says: "The inorganic substances in the blood and tissue are suffiicent to heal all diseases that are curable at all. The question whether this or that disease is or is not dependent on the existence of germs, fungi, or baccilli is of no importance in biochemic treatment. If the remedies are used according to the symptoms, the desired end,

that of curing disease, will be gained in the shortest way. Long-standing chronic diseases, which have been brought about by overdosing or use of poisonous drugs, quinine, mercury, morphine, alcohol, etc., may be cured by minute doses of cell-salts."

Professor Liebig, the world-wide authority in chemistry, says: "It happens that a tissue in disease reaches such a degree of density, becomes so clogged, that the salt solution of the blood cannot enter to feed and nourish; but, if for therapeutic purposes, a solution of salt be so triturated and given so diluted that all its molecules are set free, it is presumable that no hindrance will be in the way of these molecules to enter the abnormally condensed part of tissue."

The body is made up of cells. Different kinds of cells build up the different tissues of the body. The difference in the cells is largely due to the different mineral salts that enter into their composition. If we burn the body, or any tissue of it, we obtain the ashes. These are the mineral or inorganic constituents of the body, the salts of iron, lime, magnesium, etc. They are the *tissue builders,* and both the structure and vitality of the body depend upon their proper quantity and distribution in every cell.

Professor Huxley said: "Those who are conversant with the present state of biology will hardly hesitate to admit that the conception of life of one of the higher animals as the summation of the lives of a *cell aggregate,* brought into harmonious relation and action by a co-ordinative machinery formed by some of these cells, constitutes a permanent acquisition to physiological science. I believe it will, in a short time, become possible to introduce into the human organism a molecular substance that will by the law of chemical affinity find its way to the particular group of cells or nerve plexus that may be in need of it."

We know that the cell-salts, or mineral workers, in the blood are infinitesimally sub-divided in the food we eat. Nature works everywhere with immense numbers of infinitely small atoms, which can only be perceived by our dull organs of sense when presented to them in finite masses. The smallest image our eye can recognize is produced by billions of waves of light.

A granule of salt which we can scarcely taste contains millions and millions of groups of atoms which no human eye will ever discern. A search for the ultimate atom will surely end in complete recognition of the operation of wisdom, or Omnipresent Life.

One quart of milk is found by analysis to contain about the six-millionth of a grain of iron; a child fed on milk receives each time one milligram of iron in a half-pint of milk, which is only the fourth part of the above minute fraction of one part of a grain of iron. But this infinitesimal amount supplies the iron molecules needed to carry a full supply of oxygen to all parts of the organism.

The proportion of fluorine in the human organism is still less than that of iron.

Professor Liebig says: "Hydrochloric acid, diluted with one thousand parts of water, readily dissolves the fibrin of meat and the gluten of cereals, and this solvent power is *decreased* when the acid solution is made stronger." One red-blood corpuscle does not exceed the one hundred and twenty-millionth of a cubic inch. There are over three millions such cells in one droplet of blood, and these cells carry iron and other mineral workers. How necessary, then, to administer these salts in minute molecular form!

THE BIOCHEMIC PATHOLOGY OF EXUDATIONS, SWELLINGS, ETC.

IT is very important for the student of Biochemistry to fully understand the real cause of exudations, swellings, inflammation, eruptions and all accumulations of all so-called morbid matter which accompany disease.

Heteroplasm is defined by Virchow as a substance foreign to the normal constituent parts of the human organism. It must be that the normal constituent parts of the body have become abnormal for some reason, as the change occurs in the organism of man and not outside.

The fluids of the body, containing oil, fibrin and other albuminous substances, could not so combine as to render them non-functional, or to form vitiated compounds, causing exudations, eruptions, etc., if the vitalizers, the workers, called inorganic cell-salts, were present in proper quantity. There is a small amount of muriatic acid in gastric fluids, and a deficiency of the same causes indigestion and possibly catarrh of the stomach, which means exudation of certain organic matter from the blood; but this abnormal state would not exist unless there first arises a deficiency in some one or more of the inorganic or mineral salts. Muriatic acid is formed by the union of certain dissimilar substances, which conjoin and form new compounds. This is Biochemistry—that is, life chemistry, the real definition of the word.

Any breaking up of the chain of continuity of the cell-salts, of course, disturbs this process of forming new organic material to replace that cast off as worn out and useless.

Let us take a condition called acidity, or an excess of acid. It is well known that either acid or alkali alone may be injurious to man and seriously interfere with the process of life, while a proper combination of the same forms natural fluids of the body.

There is not, properly speaking, an excess of acid, but a deficiency in the alkaline cell-salts.

A deficiency of sodium phosphate causes a breaking up of the basis of certain parts of the blood plasma, which causes, or allows, the acid to stand alone and thus produce a disturbance. Of course, this is due entirely to a lack of the alkaline salts—a proper balance of them—and not to an excess of acid. When the true cause of eruptions, swellings, exudations, etc., is fully understood, the names now used to designate the supposed difference will not be used.

Instead of treating a certain disease (which simply means not at ease), the physician will learn the telegraphy of the intricate, complex, marvelous human machine and know what is asked for in the words now, or heretofore, supposed to simply be pain or exudations.

CHEMICAL OPERATION

A CHILD may touch a button that will start a complex machine to operating, and yet not understand the science of physics or the mechanism of the machine.

So many systems of healing may be the means of starting the workmen in the system that have become dormant into action. Massage, bathing, electricity, magnetic healing, suggestion, absent treatments, concentration, affirmation, prayer, all these and many more that might be mentioned, can and often do *start* forces that have become dormant because some link in the chemical chain of inorganic molecules has been misplaced or thrown out of gear, *but when these chemicals (man's body is a chemical formula, remember) are deficient* in the blood, you can no more supply them by any of these modes of operation than you can cure hunger by them. These methods are all good in their time and place to start dormant energies, but none of them will supply deficiencies—viz., cure hunger.

So Biochemistry furnishes the key to all cures made by the old or allopathic, the homoeopathic or electic schools, or by medical springs or healing through the operation of mind.

There are some who heal by thought transference, others must come in contact with the patient. In either case, I hold the process is orderly and within the domain of law.

This science is in perfect harmony with the Chemistry of Life operating in each human organism, and cannot antagonize any phase of higher thought. Mind, or mental cures, Christian or Divine science, suggestive therapeutics or magnetic healing, must all operate according to Divine law (Life Chemistry), or not at all. The operation of wisdom has many names, but the *chemical process* is one.

MAN'S DIVINE ESTATE

A Prophecy of the Age of Alchemy

BIOLOGISTS and physiologists have searched long and patiently for a solution of the mystery of the differentiation of material forms.

No ordinary test can detect any difference in the ovum of fish, reptile, animal, bird, or man. The same mineral salts, the same kind of oil, albumen, fibrin, or sugar, or carbon is found, not only in the egg or germ of all forms of life but in the substance or tissue of the bodies of all the varied expressions of materiality.

The answer to this "Riddle of the Sphinx" is found where Bio, or Life, Chemistry merges into alchemy, over the door of which is written, "It is finished"—"Let there be light."

Professor Loeb says: "The ultimate source of living matter is chemical." To the Biochemist the above is a truism. There is no such thing as inert, or dead, matter. All is life.

The base of all manifestation is mineral. Out of the dust, ashes, or minerals of the earth physical man is made.

The twelve mineral salts are the basis of every visible form, animal or vegetable. No two different forms have exactly the same combination of the minerals, but all have the same minerals.

These minerals, inorganic salts, are the twelve gates of precious stones described by John in his vision. When the Divine Word speaks the mineral atoms, or molecules, of its body into a certain formula or combination, a germ or egg, which is the basis or nucleus of the form to be manifested, materializes. This little plexus of intelligent atoms then commences to attract to its centre by the law of chemical affinity, which is only another way of saying God in action, other atoms known as oxygen, hydrogen, nitrogen, etc., and thus materializes them, until the building is completed according to the

plan of the architect or designer. Thus the Word, operating through chemistry, is the Alpha and Omega.

There would be no eagle, fish, horse, or man without the Word, Divine Wisdom, and there would certainly be no Word, if there was no substance to obey the Word, and likewise there would be no substance, if there was no law of chemical affinity, or action and reaction, whereby the operation of materialization and dematerialization may be carried on.

It will be demonstrated in the near future, that so-called nitrogen is mineral in solution, or ultimate potency, which explains the reason why nitrogen enriches the soil.

The Atmospheric Product Company at Niagara Falls, whose promoters expect to extract and condense nitrogen from the aerial elements by electrical process, are the forerunners of machines that will manufacture our food and clothing direct from the air, and also produce heat or cold as needed by different rates of vibration of the substance, body of God, everywhere present.

Neither light nor heat comes from the sun, for they are not entities that can come or go. They are effects or results. The sun is surely a great dynamo, or vibrating centre of Divine Energy, which by its thought moves the atoms of our earth-envelope, and by vibration or motion chemically causes light and heat in different degrees, according to its good will and pleasure.

By chemistry, the court of last resort, will man come into his divine estate. He will then place the "Poles of Being," and produce vegetable or animal forms at will.

Thus the prophecy of man's dominion will be fulfilled, for he will have attained knowledge which will enable him to manufacture a psychoplasm (if I may be permitted to coin a word), from which he can bring forth all manner of vegetable or animal life.

Let man stand upright and splendid,
  Let woman look up from the sod—
For the days of our bondage are ended,
  And we are at one with God.

INTUITION, OR THE INFINITE VIBRATION

INTUITION is information direct from the source of all knowledge, vibrating the brain cells and nerve centres of the human organism—the temple, or instrument, of the living God—at different rates, or tones, according to the chemical combination of physical atoms composing the organism. An alligator, a horse, a monkey, or a man, being organized each on a different key, receives and expresses the infinite word according to its note, molecular arrangement, or chemical formula.

Wireless telegraphy is demonstrating the underlying principle of what the world has named intuition.

Mental, or absent healing, is scientifically explained in the explanation of wireless telegraphy. The same substance—air, or ether—fills the so-called space in which we exist. We (our bodies) are strung on this attenuated substance like spools on a string; it extends through us—we are permeated with it as water permeates a sponge.

When the brain cells of the mental healer are acted upon by the word or thought of the healer, they vibrate, jar, or oscillate at the rate that causes an arrangement of cells that manifests or materializes the bodily functions on the plane of health. This rate of vibration, started from the sender, will produce the same rate, or jar, in the brain cells of any one attuned to the note, providing they recognize the operation, for it is only through such consciousness that we become a receiver.

Thus we realize the truth of the statement, "Thy faith hath made thee whole."

The sender and receiver in the Marconi system must be in the same key—that is, adjusted to sense the same jar, or vibration. When the brain of the healer and patient are in unison, through conscious understanding or agreement, cures can al-

ways be effected, if the chemical constituents—molecules—are present in the organism of the patient, though dormant, negative, or out of harmonious co-ordination, by the proper jar, or thought vibration, of the healer or sender.

But, if the blood of the patient is really deficient in some of the mineral salts, or cell-salts, the phosphates, sulphates, and chlorides of iron, lime, potassium, and other inorganic substances which compose the material organism, the cure cannot take place unless the jar, or vibration, of health started by the sender so oscillates, or jars, the fluids of digestion and assimilation that these lacking elements are set free from the food and water taken by the receiver (patient), and thus supply the deficiency. It is these cases that baffle mental or divine healing.

Biochemistry fills the gap, offers the solution of the problem by preparing the cell-salts and proceeding directly to the work of doing that which is absolutely necessary to be done, namely, supplying *the necessary chemical molecules.*

The body is a storage battery, and must be supplied with the necessary chemicals, or it will not run. When this can be done by right thinking, well and good; but, when a deficiency does occur, why not supply it direct by a biochemic procedure? Mental science is an incomplete science without Biochemistry.

THE SO-CALLED ELEMENTS

SO far as science has been able to weigh, measure, or in any manner cognize them, there seems to be about seventy-two elements in nature, viz., in the earth, water, and air, a combination of which makes manifest all we see or recognize in the material world.

We do not print the following as an ultimatum, for certain changes in the aerial elements, as well as in the cellular structure of the human brain may, and doubtless will, enable man to penetrate deeper and deeper into the Holy of Holies of Omnipresent Life.

We do not believe there is any such thing as an element different from the universal substance in its last analysis. We believe that so-called "elements" are different rates of motion, or vibration of *one substance*.

Behind all chemical phenomena,

> "Standeth God within the shadow,
> Keeping watch above His own."

The names and abbreviations of the so-called principles or elements are as follows:—

Aluminum	Al	Copper	Cu
Antimone (Stribium)	Sb	Didymium	Di
Argon	Ar	Erbium	Er
Arsenic	As	Fluorine	F
Barnim	Ba	Glucinum	G
Bismuth	Bi	Gold (Aurum)	Au
Baron	B	Hydrogen	H
Bromine	Br	Helium	Hm
Cadmium	Cd	Indium	In
Caesium	Cs	Iodine	I
Calcium	Ca	Iridum	Ir
Carbon	C	Iron (Ferrum)	Fe
Cerium	Ce	Lanthanum	La
Chlorine	Cl	Lead (Plumbum)	Pl
Chromium	Cr	Lithium	Li
Cobalt	Co	Magnesium	Mg

Manganese	Mn	Silver (Argentum)	Ag
Mercury (Hydrargyrum)	Hg	Sodium (Natrum)	Na
Molybdenum	Mo	Strontium	Sr
Nickel	Ni	Sulphur	S
Niobium	Nf	Tantalum	Ta
Nitrogen	N	Tellurium	Te
Osmium	Os	Thallium	Ti
Oxygen	O	Thorium	Th
Palladium	Pd	Tin (Strannum)	Sr
Phosphorus	P	Titanium	Ti
Platinum	Pt	Tungsten (Wolfram)	W
Potassium (Kalium)	K	Uranium	U
Radium	Rm	Vanadium	V
Rhodium	Ro	Yttrium	Y
Rubidium	Rb	Zinc	Zn
Selenium	Se	Zirconium	Zr
Silicon (Silica)	Si		

Ten or twelve more might be added, but their atomic weight and affinities are so uncertain that we have omitted them for the present.

ESOTERIC CHEMISTRY

IN this strenuous age of reconstruction, while God's creative compounds are forming a new race in the morning of a new age, all who desire physical regeneration should strive by every means within their reach to build new tissue, nerve fluids and brain cells, thus literally making "new bottles for the new wine." For be it known to all men that the word "wine" as used in Scripture, means blood when used in connection with man. It also means the sap of trees and juice of vegetables or fruit.

The parable of turning water into wine at the marriage at Cana in Galilee is a literal statement of a process taking place every heart beat in the human organism.

Galilee means a circle of water or fluid—the circulatory system. Cana means a dividing place—the lungs. In the Greek, "A place of reeds," or cells of lungs that vibrate sound.

Biochemists have shown that food does not form blood, but simply furnishes the mineral base by setting free the inorganic or cell-salts contained in all food stuff. The organic part, oil, fibrin, albumen, etc., contained in food is burned or digested in the stomach and intestinal tract to furnish motive power to operate the human machine and draw air into the lungs, thence into the arteries, i.e., the air carriers.

Therefore, it is clearly proven that air (spirit) unites with the minerals and forms blood, proving that the oil, albumen, etc., found in the blood, is created every breath at the "marriage in Cana of Galilee."

Air was called water or the pure sea, viz.: Virgin Mar-y. So we see how water is changed into wine—blood—every moment.

In the new age, we will need perfect bodies to correspond with the higher vibration, or motion of the new blood, for "old bottles (bodies) cannot contain the new wine."

Another allegorical statement typifying the same truth reads,

"And I saw a new Heaven and a new Earth," i.e., new mind and new body.

Biochemistry may well say with Walt Whitman: "To the sick lying on their backs I bring help, and to the strong, upright man I bring more needed help." To be grouchy, cross, irritable, despondent, or easily discouraged, is prima facie evidence that the fluids of the stomach, liver and brain are not vibrating at the normal rate, the rate that results in equilibrium or health. Health cannot be qualified, i.e., poor health or good health. There must be either health or dishealth; ease of disease. We do not say poor ease or good ease. We say ease or dis-ease, viz., not at ease.

A sufficient amount of the cell-salts of the body, properly combined and taken as food—not simply to cure some ache, pain or exudation—forms blood that materializes in heatlhy fluids, flesh and bone tissue.

The microscope increases the rate of motion of the cells of the retina and we see things that were occulted to the natural rate of the vibration of sight cells. Increase the rate of the activity of brain cells by supplying more of the dynamic molecules of the blood, known as mineral or cell-salts of lime, potash, solium, iron, magnesia, silica, and we see mentally, truths that we could not sense at lower or natural rates of motion, although the lower rate may manifest ordinary health.

Natural man, or natural things, must be raised from the level of nature to super-natural, in order to realize new concepts that lie, waiting for recognition, above the solar-plexus, that is, above the animal or natural man.

The postive pole of Being must be "lifted up" from the Kingdom of Earth, animal desire below the solar-plexus, to the pineal gland that connects the cerebellum, the temple of the Spiritual Ego, with the optic thalmus, the third eye.

By this regenerative process millions of dormant cells of the brain are resurrected and set in operation, and then man no longer "sees through a glass darkly," but with the Eye of Spiritual understanding.

Biochemistry is the sign-board pointing to the open country, to hills and green fields of health and the truth that shall set the seeking Ego free from poverty and disease.

THE FALLACY OF THE GERM THEORY OF DISEASE

THE true physician says, with Emerison, "I will proclaim what I prove to be true to-day, though it contradict what I have advocated all my life."

Do we try to use reason in figuring out any problem? Long ages of working for self-preservation have taught mankind that when a certain sensation is felt at the pit of the stomach it is caused by hunger and that, if food is taken, the symptom will disappear.

But the hungry one does not once think of a germ or microbe causing that gnawing sensation. He realizes, intuitively, that the human laboratory is sending out an S.O.S. to let the owner know that it needs fuel for its furnace, and that, given the fuel, combustion will at once begin and heat and energy will be furnished to run the human dynamo. At the same time, in this process of generating heat and energy, the mineral particles which are contained in the food will be set free, taken up by the absorbents and carried into the blood, the river of life, and distributed to all parts of the body.

As this wonderful river flows through, each tiny individual cell reaches out and actually selects from the stream, the inorganic cell-salt that it needs to re-build that portion of itself which has been destroyed in the continuous process of tearing down and building up.

If each cell is furnished with material to replace that which is torn down, then there is no interruption of the orderly process of nature and conesquently there is perfect equilibrium.

When we repair a house, or any article of use, we select the same kind of material that was employed in its construction. Why should not this rule hold good when applied to the "Temple of God"—the human body? When we stop to really think

about it, does it not seem unreasonable and absurd to give it poisons and drugs of any kind?

No actual progress has been made in the definite cure of any disease. In surgery, however, which is mechanical in its operation, marvelous progress has been made. Take such a common disease as pneumonia, for instance; one is never sure whether the patient will live, or die. If the symptoms do not cease, it is evident that the body has not been supplied with the proper material, else it would not be sending out signals, calling attention to itself.

If the little cells of the body, in their reaching out to grasp from the blood that which they need, do not find it, they do not take anything. What is the result when a person cannot get food? We do not say he has "caught" hunger—that a certain germ has caused it, or that he can give it to another, or that another can "catch" it from him. But when the cells cannot get what they need, we say that the person has "caught" some kind of disease—some microbe has entered the laboratory of the human body. Does it seem reasonable?

What really occurs is this: The cells break down and disintegrate, because there is nothing, or not enough material given, to supply or replace the waste. As the functions are disturbed, this waste matter is not carried out of the body, but remains, clogging and poisoning the system. The little drain tiles which carry off the excess moisture and the poisons of the body are clogged and the surplus heat and moisture cannot escape; then fever, so called, results. If these little vents of the human body are not soon restored to their normal function, the patient dies. Give a stove too much fuel and close all the drafts, and the fire will go out. A person who eats more than the body requires, keeps the intestinal tract filled with fermenting food (just as a stove or furnace may be filled with clinkers), for there is not enough gastric juice to break it up and digest it. Auto-intoxication results and the intestinal tract is flooded with poison. Thus it is that such a person is always among the first to "catch" any so-called disease.

We give the engines that run our machinery a great deal more intelligent care than we give the dynamo that runs the physical machinery. A good machinist spends much time over

his engine. He uses reason and common sense and knows that if his engine is clogged with oil or dirt it will not run easily and smoothly and he cannot expect to get maximum power from it. Why should physical machinery differ in this respect from artificial mechanism? Instead of using reason and giving the physical furnace the right proportion and quantity of fuel—what do we do? We eat, because it tastes good, a greater amount than we need, often suffering extreme discomfort.

When an article of food spoils, or a dead body starts to decompose, we do not say that a germ or microbe caused it—we know that it was because of atmospheric conditions; but we do realize that flies and maggots are formed from the decaying mass, and, if left alone, will consume it and die. The flies and maggots did not come until there was dead (so-called) matter present, for that is nature's method of removing it.

There are many kinds of material in the human body, and each is used for a definite purpose. For instance, there is much fibrin, which is a constituent of the tissue of the body. This needs the inorganic cell-salt, chloride of potassium (Kali Mur), to combine with it and make it functional. If the system is deficient in this cell-salt, the fibrin is not able to do its work—becomes non-functional—and, if not carried off by any of the means which Mother Nature employs, it clogs the mechanism. Then we have a cough, or pneumonia sets in, or perchance we "catch" typhoid. The same thing causes it all, namely, a deficiency in chloride of potassium. Microbes are found—yes—but they are the product of decaying matter.

Away off in some secluded mountain home, one of the members of a family is taken with typhoid and dies. None of the others have it. If *caused* by a germ, what prevented the entire family from "catching" it?

An intelligent understanding of the composition and the functions of the body will enable any one to interpret the signals or calls sent out, and immediately supply the material that is lacking. One should understand that "*All* things work together for good," that the amount of food should be regulated, plenty of rest and the right amount of exercise be taken at the right time. Then a combination of the twelve cell-salts found in the body

should be taken systematically in order to supply the deficiency in the human laboratory.

When the deficiency occurs, the patient, not being at ease, imagines that something must be the cause of the so-called pain, fever or unrest; and, in this, he is encouraged by the Doctor, who coins a Latin or Greek word to give standing and personality to the myth. The condition of not-at-ease arises because the blood, not being perfectly organized blood, does not properly feed and nourish the nerves, muscles and other tissues of the body, and, then, a call or dispatch is sent to the throne of understanding, asking that the lacking principle may be supplied.

These words, asking for the workmen to build new tissues into the human organism have, through the grossest ignorance, been given names in Latin or Greek, clothed with the tinsel of so-called scientific authority, and the people have been called upon to recognize and bow down in fear before the devils thus let loose.

An irreverent writer not long ago said that the romances of the present day were written by scientists, and that Rider Haggard, with "She" and "King Solomon's Mines," was but a dabster in comparison. A short time ago the *Homeopathic Envoy* said: "The march of science is preceded by an ever-increasing horde of Greek and Latin terms which stupefy the brain of the unscientific who seeks to comprehend them."

Among the latest of these words to carry dismay to the learned and unlearned is "phagocyte." Occasionally the editor of a daily paper is seen struggling with this foreigner, as though he knew all about him, and in late medical journals he may be seen stalking across the pages of some of the heavyweights. Of course, no one would display his ignorance by asking what sort of a thing a "phagocyte" is; so we will look up his pedigree in the lexicons. The word "phagocyte" is derived from the Greek "Phagein", to eat, and "cytos", a hole or cavity, and really means an eater with capacity—a ravenous eater—but, according to the scientific gentleman, a "Phagocyte" is an eater of bacilli. Now, no doubt, the grand idea becomes apparent: turn the phagocytes loose in the system and let them run out the bacilli, as ferrets run rats out of a barn. One learned editor of a great daily, in the early days of lymph, suggested that it was a phago-

cyte, and discoursed most learnedly on the vast fields this new discovery of science opened up, and speculated as to whether each breed of bacilli had its own phagocyte or whether one breed of phagocyte could sail in and wipe up the floor with the most ferocious bacilli.

One question, however, has not yet been considered, and we respectfully suggest that science turn its light in that direction. After the pugnacious phagocyte has cleaned out the bacilli, what creature shall we turn loose in our insides to fight the phagocyte?

For the benefit of those who wish to know what the phagocyte may be called upon to contend with, I will mention some of the latest discoveries in the realm of the microbe: Man's liver may be infested with the terrible *distomum hepaticum,* while that of mutton suffers from *distomum lanceolatum.* The rabbit whisks about with *coccidium oviform* in his inwards, while man and cow both furnish habitation for the gentle *echinococcus polymorphus.* Man alone seems to have the distinction of entertaining the aristocratic *bothriocephalus latus* and that freebooter of the highway, *ankylostomum duodenale.* The sporting couple, *dochimus tringoncephalus* and *stenocephalus,* seek the society of hunting dogs only; first cousins to these, but rather more aristocratic, are the brothers, *sclerostoum hypostomum* and *tetracanthum,* who ride in horses; while the diserputable family on whom all well-regulated microbes look down, that is, the *strongylicontortus, fillicolus, strigocus* and *retortorformis,* dwell amidships in goats and such like plebeans. But the most noted of all is the musical *dochmius atenocephalus,* the intimate of the cat, which, as further research will no doubt reveal, must be the microbe of all attempts to reach high C.

But Virchow's researches completely overthrow the germ or microbe theory and clearly prove that disease is caused by a lack of some constituent of the blood at the part affected and not by germs or bacilli.

The human system can use its constituent parts only; the cells are not fed—they feed themselves. They reject what they do not need. It cannot be forced upon them, except to the detriment or death of the body. Our vital forces are at once set to work to rid the system of anything and everything that does

not belong to our organism and will not assimilate with blood, bone, muscle or other tissues.

Calomel, quinine, aconite, belladonna, salicylic acid, opium and the thousand and one poisons used in the "regular" medical practice are not constituent parts of the blood—are not found in the human organism, and, when taken into the system, set up their own action for the abnormal condition called disease and are worse than the disease itself.

Calomel does not cure; it simply sets up a diarrhoea in place of constipation. Opium does not cure; it simply causes paralysis of the nerve centers, in place of neuralgia. Those who take poisons and yet recover, do so in spite of both the disease and the drugs. The normal condition is restored through the natural processes. The so-called medicines have no part in the restoration. No improvement can be made on the human organism in this respect. The constituent parts of our bodies, when perfectly balanced, keep all in harmony. When an abnormal condition arises, harmony can be restored by restoring the balance, but not by introducing a poison into the system. The disease may be changed to one that manifests itself in a different manner, but the patient is not cured. The word poison has but one definition, that is, an agent which, when taken into the stomach or blood, produces either disease or death. Therefore, by no possibility can poison cure.

When the microscope first revealed the fact that there is no inert matter—that all so-called matter is life in operation, even in the crystal and diamond—the scientists were frightened out of their wits. They saw God face to face, named Him "microbes" and tried to kill Him with carbolic acid.

But "He that sitteth in the heavens laughed and had them in derision." Carbolic acid is one expression of "Omnipresent Life"—microbes are another expression. Add the two and you still have the life.

The true thing alone is orthodox and no length of time can sanctify error. Not many years ago, the State Board of Health of Louisiana caused cannon to be fired in the streets of New Orleans, expecting the concussion to *kill the germs of yellow fever*. Later, the Seers of medicine declared that mosquitos were the sole cause of this disease.

It is claimed by the adherents of the germ theory that so-called malarial conditions are caused by germs.

Dry air cures ague. Cold weather cures ague. Sodium sulphate *(natrum sulphuricum,* or sulphate of sodium) in 3th X-one of the cell-salts of the blood—cures ague. So, then, these must all be Royal Germ Killers. No, they supply deficiencies.

Ague is caused by an excess of water in the blood and *dry* air (cold air is dry air), furnishes an extra amount of oxygen to the blood through the lungs, and eliminates the excess of hydrogenoid gases or water.

Sodium sulphate molecules eliminate an excess of water from the system. Each molecule has the chemical force to carry two molecules of water. *No one ever has ague whose blood is properly supplied with* SODIUM SULPHATE, NO MATTER HOW MANY GERMS OF MALARIA MAY ASSAIL HIM. The Homeopathic News published the following editorial on the germ theory in 1892:

"It is to be hoped that no intelligent homeopathic believes in a microbic origin of disease. It may be a matter of interest to the physician to study the bacteriological accompaniments of a given malady—if the malady has any; but the idea, that the fullest knowledge of the particular bacillus that may be found in the body of the subject of a given disease is of practical benefit to anybody, is a mistake.

"For whether we empirically administer drugs, hoping to cure disease, or prescribe experimentally for the destruction of a bacillus known to us microscopically, is all one. Give us a specific for cholera, and we care not whether our specific cures by destroying certain bacilli, or by producing blood changes, or in any other way. Where there is no guiding law for the cure of disease, it is all try, try, try, let the cause within the organism be animal, vegetable, or mineral, known or unknown.

"But we do not believe that, if bacilli peculiar to certain maladies have been found, they are the cause of the diseased state, that they accompany, any more than we believe that the leaves on a tree are the cause of the existence of the tree.

"When a theory of the causation of disease is backed by names universally admitted to be as great as those that endorse

the germ theory, intelligent men are willing to investigate it. This we have done most thoroughly; and we believe that theory to be erroneous from top to bottom, and from first to last. We have never found a particle of evidence that bacilli have been discovered—in the sense pretended by their 'discoverers.' They have undoubtedly been 'faked' to a very great extent, beyond doubt intentionally on the part of the chief promulgators of the germ theory. The medical profession cannot be blamed, if its members very much doubt whether those gentlemen themselves believe in their own theory, or in their own 'discoveries.' We have learned to know, that disease is not an entity, but a condition produced by deficiencies, and that germs are a product of these conditions and do not cause the conditions."

The remark is frequently heard that the baby *"nursed"* its sore throat or bad cold from its mother. The statement is not only dogmatic and crude, but in the light of Biochemistry, is un-scientific.

The new pathology claims to be able to scientifically demonstrate the fact that so-called disease is simply a condition, and not an entity that may be transferred from one to another. Therefore, the expression, "Caught it from its mother", cannot be correct.

But then, the question arises, "How shall certain facts be explained"? No one will venture to deny, that nursing infants are very liable to suffer from the same symptoms that manifest themselves in their mothers; and, when we take issue with the race belief as to the *modus operandi,* by which the condition of the mother appears in the child, it is meet that we should offer our reasons and suggest the true cause of the phenomena.

In order to make the matter clear, I will offer an illustration: Suppose a child, say five or six years of age, should be fed on a certain kind of grain, known to be deficient in phosphate of lime, and should, as a consequence, suffer from the disease or condition known as rickets, *rachitis,* admitted by all schools to be caused by a deficiency of the lime salts of the blood. In such case, no one would maintain that the grain gave the child the rickets, or that it caught it from the grain, but rather, that the grain, being deficient in lime, but not in albumen, furnished the blood with a sufficient quantity of *organic* matter, but not

enough mineral or inorganic material to build up true bone structure.

Now for the application. Before the mother (or any one else) can have a cold or sore throat, there must be a deficiency in one or more of the inorganic cell-salts, or tissue builders, of the blood. Let us suppose the salt, that has fallen below the maximum, to be potassium chloride (kali mur), and, as a consequence, a certain portion of fibrin, not having workmen—molecules of kali mur,—to use, was thrown out by the circulation and clogged the parotid gland or tonsils, or other glands, or caused irirtation to the membrane in nasal passages, or larynx, bronchial tubes, or pleura, or clogged the air cells of the lungs. In such case, is it not reasonable to suppose the mother's milk would be deficient in the cell-salt kali mur, and that the child, in accordance with the law laid down above, would also suffer from the *result of the deficiency,* as did the mother?

As to germs, or bacilli, or microbes, etc., they swarm throughout all nature. *They are Omnipresent Life in operation.* They adhere to membranes in unhealthy conditions, but do not affect healthy ones.

Decaying organic matter produces microbes that exist while the process of decay goes on, feed *upon* it and disappear with it and return to the elements from which they were materialized.

DIPHTHERIA

LET me call your attention to the pathology of diphtheria (Greek for membrane), that scourge which baffles the skill of the regular practitioner, although his office walls are decorated with diplomas written in Latin. In venous blood fibrin amounts to three in one thousand parts; when the molecules of chloride of potassium fall below the standard in the blood, fibrin thickens, causing what is known as pleurisy, pneumonia, catarrh, diphtheria, etc. When the circulation fails to throw out the thickened fibrin via the glands or mucous membrane, it may stop the action of the heart. Embolus is a Latin word, meaning "little lump" or balls; therefore, to die of embolus, or "heart failure", generally means that the heart action was stopped by little lumps of fibrin clogging the auricles and ventricles of the heart.

In diphtheria we have a striking illustration of the effect of deficiencies. Electric changes and disturbances in the atmosphere cause a deficiency in molecules of potassium chloride.

But some one may ask how atmospheric or electric states and changes affect our cell structure, so that conditions called disease appear. It is well known that there are subtle influences which, although invisible, produce well-defined results. The barometer rises or falls while the degree of heat or cold remains unchanged. Every baker knows there are influences unseen and unfelt by him that prevent his yeast from rising. They are simply antagonistic influences.

When these influences are adverse to man, he suffers just in proportion to his inability to meet the opposing forces. The forces that injure him first act through the pneumogastric nerve, disturb the gastric juice and break up the chain of molecules of iron. This diminishes the outer circulation, the feet and hands are probably chilled, the pores of the skin close and the waste matter, the dead cells that should be cast off through these avenues, are turned upon the inner organs. It is

the law of conservation of energy that motion is changed to heat; and when the machinery of our being is set more actively to work to rid the system of this waste matter, the increased circulation which follows produces an excess of heat which is called fever.

In diphtheria, which, as said before, is caused by a deficiency in molecules of potassium chloride, these salts with fibrin and albuminous substances find their way to the tonsils and thymus gland and form a plastic exudation. From the supply constantly thrown out of circulation the accumulation keeps growing until the patient dies of suffocation. There is no specific diphtheria germ.

CHOLERA

CHOLERA is a Greek term, derived from "chole," meaning bile. Cholera is a chemical condition characterized by violent emesis, diarrhoea, abdominal pains and cramps. The alvine discharge, resembling rice water, with floculent sediment, indicates great disturbance in the gray matter of the brain and a breaking up of the nerve fluids; also a non-functional operation of water, which shows that sodium chloride molecules have fallen below the standard of balance, and, therefore, fail to properly control and distribute water. The chief cause of the acute attack is the breaking away of water from blood and serum.

But the primary cause is an over-supply of water in the blood, caused by an atmosphere heavily laden with moisture. Cholera does not thrive in temperature below 70 degrees, although cases sometimes appear after the temperature has fallen below 70 degrees, but the blood has become overloaded with water during the time the heat was great enough to cause excessive humidity. Persons who have not been exposed to humid air, do not yield to the disease, although they may come in contact with a cholera patient. Therefore, my contention is, that an excess of moisture (pure water, H_2O), is the cause of cholera, and that germs, microbes, bacilli, etc., are concomitants of the chemical break in the blood and nerve fluids. Pure water may thin the fluids of the liver until fatal results are produced.

The so-called cholera bacillus lives on the heteroplasm caused by the molecular break in the chain of the mineral salts in the blood. Sodium sulphate regulates the amount of water in the blood by its chemical power to eliminate the surplus water. But when the air is overcharged with aqueous vapor, sodium sulphate molecules often become overworked in their efforts to eliminate water, and a deficiency arises, leaving the "water logged" system in the condition known as cholera, yellow fever, or malaria (bad air), according to the degree of the deficiency

coupled with planetary aspects at the particular time. In most instances the person with too much water in the blood will simply suffer from the condition known as chills and fever, or malaria. The chill is a spasm of the muscular nervous and vascular system, making a supreme effort to wring out and throw off the surplus water in the blood that would have been done by the catalyic action of sodium sulphate, had there been a reinforcement of that cell-salt to equal the amount of water taken into the arteries through the lungs by breathing air overcharged with humid vapor.

The heat (called fever), that follows a chill, is but the result of rapid circulation (friction), caused by nature's efforts to carry oxygen to all tissues of the body to supply the deficiency caused by the spasm or chill.

If the amount of water in the blood should be excessive, and planetary angles favorable, the fluids of the liver and pancreas break away. The liver first empties its contents, and the discharge is colored with bile, but, later on, the fluids are clear, or like rice water, which indicates water and nerve fluids. All other outlets of the body seem closed except the intestinal tract. The pores close and the urinary secretions become dried at their source.

In 1852 Peyton wrote, in a treatise on cholera: "Very remarkable results have been found to follow the injection into the veins of a dilute solution of saline matter resembling, as nearly as possible, the inorganic salts which have been drained away."

During a cholera epidemic in 1877 the famous Dr. Koch went to India to search for the cause of that dread disease. A microscopic examination of the cistern water (it had never been examined before) revealed bacilli, (Latin for little sticks), and Dr. K. sagely concluded that he had found the cause of cholera. The discovery was telegraphed to "earth's remotest bounds", and the fatted calf was killed and eaten, while the medical world held "high jinks"; but they could not find anything that would kill the germs without being quite as fatal to the patient as cholera. After colder weather came and the cholera epidemic subsided, some doctors who were skeptical about the microbe nonsense (quacks, I suppose), went to India to search for the

dead germs, thinking, of course, that as there were no more cholera, there could be no more germs; but, on examining the cistern water, they found the bacilli lively and in good health, but they refused to bite any more. It seems that these microbes only got real hungry during the hot weather.

PNEUMONIA

THE following, on pneumonia, was taken from the Biochemic System of Medicine, published in 1894: "No abnormal condition with which suffering mortals are afflicted has such terrors for the average physician as pneumonia, unless it be typhoid or typhus fever. The New York Medical Record, of late date, contained the following: 'Pneumonia is attended at the present day with an ever-increasing mortality—so high, in fact, as to constitute a reproach to medical science.'

"A prominent physician of Philadelphia wrote as follows: 'The mortality of pneumonia in Philadelphia has increased, and is greater today than it was thirty years ago.'

" 'The errors of thirty years ago have been intensified. Still larger doses of nauseating drugs have been administered, and the local treatment has increased in severity.' The microbe theory, the fallacy of the age, has piled error on error, until the wonder is that any one recovers from pneumonia under the treatment. The trouble all along has been the failure of the medical profession to understand just what causes the condition of: 'not at ease,' in pneumonia.

The medical text-books and dictionaries will tell you "That pneumonia, or lung fever, is inflammation of one or more lobes of the lungs;" but make no attempt to explain what inflammation really is or what produces it. These books tell us that certain anatomical changes take place; that firm or solid exudation is found in pulmonary alveoli, but do not tell of what the exudation is composed or how it reached the air cells. We are graciously informed that 'there is intense congestive hyperaemia'; that 'there is red hepatization, in which the lung is bulky, heavy and airless, its red tint due to extravastated corpuscles and distended capillaries or gray hepatization, due to decolorization of the exudation and pulmonary anaemia or colliquation and resolution.'

"The above may be very learned, but the student cannot help but wonder what the cause of it all is, and what on earth he will do to prevent it.

"Biochemistry alone explains the cause of the abnormal condition called pneumonia and offers the cure.

"Atmospheric electrical changes so operate on the human system as to cause a deficiency in iron and other inorganic mineral salts of the blood, which lowers the vitality and causes the pores to close. The waste matter, the exudation from the skin, is then turned inward and seeks an outlet. The fluids of the body, water, albumen, etc., serve as carriers for the effete matter.

"Of course the circulation is increased, for two reasons: (a) To carry off the decaying organic matter; (b) Because of a deficiency in iron the blood is poorly supplied with oxygen, which, as is well known, has an affinity for iron; and the rapid motion is nature's effort to make the limited iron supply do the work of the maximum amount.

"If, in getting rid of the waste, nature directs it to the lungs, and this causes injury to lung structure, as the decaying, vitiated, organic matter surely will, if in sufficient quantity, the medical profession have been pleased to name it pneumonia. Catarrh, bronchitis, etc., have the same pathology.

The decaying organic matter, the heteroplasm, deposited in connective tissue and membranes during the inflammatory stage, of course, must be gotten rid of, but the circulation will attend to it, if the tools are furnished to work with. While this work is being carried on, there will be disturbances, coughs, etc., but the only rational way to do is to supply the blood with the vital principles needed, so the work may be done."

The pathology of all venereal diseases is the same as the pathology of any disease. See special article on Syphilis in the "Biochemic System of Medicine", page 353.

LESSON I.

THE chemical formula and Physiological action of the Cell Salts of the human Organism.

As bone is the foundation of the animal structure, I will commence with the bone builder.

Phosphate of Lime—Synonyms: Calcarea Phosphoricum, Calcium Phosphate. Formula $Ca_3\ Po_4\ )_2$.

Phosphoric acid, dropped in lime water, precipitates this salt in crude form. Let the student bear in mind that this lime salt, as well as all the others, must be triturated with sugar of milk up to at least the third decimal, or potency, in order that the molecules may become separated from the mass to the extent that they can be taken up by the delicate mucous membrane absorbents of the stomach and intestinal tract and thus enter the blood vessels.

As to the best decimal potency to give, to supply deficiencies in the mineral salts, there is quite a difference in opinion. Many of the homeopathic physicians contend for higher potencies, from sixth up to two hundredths, while biochemists generally use the third and sixth.

Bone tissue consists of about 57 per cent lime phosphate. The lime salt has chemical affinity for albumen. While there is a certain degree of affinity between each of the cell-salts and albumen—albumen being the base of all organic matter—the operation of calcarea phosphate with albumen is greatest. The salt chemically unites with albumen, carries it and uses it as cement to build bone tissues. Bone also contains carbonate of soda, magnesium phosphate and sodium chloride, but lime phosphate is the chief builder of bone tissue, and it follows, as a logical sequence, that it is the principal salt deficient in all so-called diseases of bone structure.

The gelatine found in bone tissue is formed by the union of albumen, oil, carbon, lime and phosphate in certain proportion. Of course, there is a small amount of other principles in bone,

such as magnesia, sodium chloride, silicia, etc. When the molecules of lime phosphate fall below the normal in amount and thus fail to keep up the supply of bone material, some symptoms of bone disease manifest. Again, a lack in the proper amount of this builder, in some instances, causes an anemic condition, for bone material (lime and albumen) is the foundation of bodily structure.

Under certain conditions, dependent on deficiencies in other cell-salts, a break in the molecular chain of lime phosphate will cause an outflow of albumen through the kidneys. Why should the escape of albumen via the kidneys be named Bright's Disease? It seems that the fact of the loss of albumen in this manner was first discovered in the case of a hospital patient named Bright, and although many Browns, Joneses and Smiths die in a regular and orthodox manner from the same cause that cut off the immortal Bright, the medical profession still dignify the disease by the original label.

The very same albumen that causes "Bright's Disease," if thrown out through the nasal passage, is called catarrh (from the Greek: To drop down).

If the albumen reaches the skin, by disintegration, or fermentation, it causes pimples, eruptions, eczema, etc. If any one derives pleasure from these names, well and good, let them use them, but chemistry knows nothing whatever about them.

A great deficiency in lime phosphate may cause albumen to accumulate in some gland and there disintegrate and flow out in pus, or heteroplasm, which is called scrofula by the old school physicians. Scrofula is derived from scrofula, Latin for sow. Maybe the ancients believed the pork eaters were more liable to the disease than were the Jews.

The lime molecules are found in the fluids of digestion and assimilation, and when there is a lack of the proper amount of these workers, the digestive juices become negative, lose their proper rate of motion, or catalyc action, ferment and thus produce gas, acid condition, etc. When lime phosphate and sodium phosphate, the alkaline salts, are deficient, acids, together with albuminous substance, may settle in the joints and thus render synovial fluids non-functional; thereby, causing pain, stiffness and swelling of the joints. Just why this chemical fact must

needs have the word rheumatism tacked to it does not appear. The word rheumatism is derived from rheum—to flow out.

Biochemistry does not deal with names and effects; it deals with causes, the chemistry of life and the law of supplying deficiencies.

Medical writers of late have adopted the term albuminuria in place of Bright's Disease, which very well describes the symptom or effect, but does not hint at the cause of the symptom.

Biochemistry seeks to learn the particular food called for by pains, exudations, swelling, inflammations, etc. Nature never calls for anything that is not a constituent part of the organism demanding supply.

Blood is the base of the physical life of man, and as a man's blood is, so is his health.

A word about potencies: We are told by the analytical chemists, that a quart of milk contains only the six-millionth part of a grain of iron. An infant fed on milk receives one milligram of iron in a half pint of milk, which is only the fourth part of the above minute fraction of one part of a grain of iron. It would seem from the above that four milligrams of iron daily is sufficient to feed all the cells that are known to contain and consequently require iron. This being the case, it surely can require but an infinitesimal amount of iron to supply the links in a broken molecular chain.

With these demonstrated facts before us, high potencies are no longer vague theories and the butt of jokes. On the contrary, they are man's best endeavor to imitate Nature's processes.

LESSON II.

Sulphate of Lime—Synonyms: Calcium Sulphate, Calcarea Sulphate, Calci Sulphos, Gypsum, Plaster of Paris.

Formula—$CaSo_4$.

This salt can be obtained by precipitating a solution of calcium chloride of lime with dilute sulphuric acid.

Sulphate of lime should never be used below the 6th decimal trituration.

Tissue is composed of living cells. By giving a tissue builder the deficient mineral salt in such a dose, fineness and amount as can be assimilated by the growing cells, the most wonderful and speedy restoration to healthy functions is brought about in every case of curable disease. We know that these minerals are infinitesimally subdivided in the different kinds of food we take, thus rendering them capable of being assimilated by the cells. The cells of each tissue-group receive their own special and peculiar cell-salt.

The sulphate of lime is the chief builder of epithelial tissue, or to be more exact, the chief sustainer for the chloride of potassium, as will be shown in Lesson V, is the worker in fibrine and has much to do in the formation of epithelium.

Lime sulphate furnishes the cohesive, or plaster, substance to sustain the integrity of tissue. The chief symptom of disease, indicating a deficiency in the lime salt, is suppuration or the discharge of pus, which is an exudation formed by the breaking down, disintergration and fermentation of epithelial cells. Lime phosphate, by its union with albuminoids, assists chloride of potassium to form epithelial tissue, or, at least, to hold it intact by its cohesive quality.

The third stage of catarrh, bronchitis, lung disease, boils, carbuncles, ulcers, abscesses or exudations from any part of the body, indicates a lack of this tissue-builder. Lime sulphate, not only sustains epithelial tissue, but, when administered in

case of suppuration, it cleans out the heteroplasm from the interstices of tissue by causing the infiltrated parts to discharge their contents readily, which prevents slow decay and injury to surrounding healthy cells.

The action of lime sulphate is opposite to the work of silica (see Lesson XII), which hastens the process of suppuration in a natural manner, while the lime closes up a process that has continued too long. Thus are we made to realize the marvelous intelligence manifested in life's procession in the organism of man.

Chemical affinity is but a synonym of infinite intelligence in operation in the functions of man.

LESSON III.

Fluoride of Lime—Synonyms: Calcaria Flurica, Calcium Fluoride.

Chemical Formula—Ca F_2.

This salt is formed by the union of lime and fluorine.

The inorganic salts are the workers, controlled and directed by Infinite Intelligence, which perform the ceaseless miracle of creation or formation.

It is quite as important for a student of Biochemistry to understand the process by which certain cell-salts operate to supply a deficiency as it is to know for what a particular symptom calls.

Elastic fibre, the chief organic substance in rubber, is formed by a chemical union of the fluoride of lime with albumen, oil, etc. Therefore, we find this salt dominant in the elastic fibre of the body, in the enamel of teeth and connective tissue.

A lack of this salt in proper amount causes a relaxed condition of muscular tissue, falling of the womb and varicose veins. Sometimes there is a non-functional combination of this salt with oil and albumen which forms a solid deposit, causing swellings of stony hardness; it is a sort of incomplete fibre with other lime salts and vitiated fluids of the body.

There is one particular symptom that is worthy of note in connection with the pathology of this salt. When a deficiency exists in these makers of elastic fibre in the connective tissue between cerebellum and cerebrum, the lower and upper brain, it causes groundless fears of financial ruin. It seems that the relaxed condition of connective tissue, causing a sagging of the structure of cerebellum, thereby breaks the flow of the electric or magnetic currents from the cerebrum.

The student will now see that it is exceedingly easy to diagnose disease from the viewpoint of Biochemic Pathology. No guesswork here. Go to twenty or one hundred Biochemic physi-

cians and give the same symptoms to each, and you will get the same prescriptions in every case.

It does not matter under what name of disease a disturbance in elastic fibre appears, a study of the chemistry of life has made clear the fact that a break in the molecular chain of lime fluoride salt is always the cause of the phenomenon.

The proportion of fluorine in the human organism is less than that of iron. From analytical facts it is found that fluorine in milk is only present in decimilligrams, and yet we are confronted by the fact that this infinitesimal amount is sufficient to sustain all the elastic fibre of muscular tissue, enamel of teeth and connective tissue.

Professor Leibig, in his chemical letters, accentuates the importance of high potencies or dilutions, as follows:

"At the temperature of the hydrochloric acid, diluted with one-thousandth part of water, readily dissolves the fibrine of meat and the gluten of cereals, and this solvent power is decreased, not increased, when the acid solution is made stronger."

Why should we search Latin and Greek lexicons to find a name for the result of a deficiency in some of the mineral constituents of blood. If we find a briar in our flesh, we say so in the plainest speech; we do not say, "I have got the briatitis or sprintralgia."

When we know that a deficiency in the cell-salts of the blood causes the symptoms which medical ignorance dignified and personified with names of which nobody knows the meaning, we will know how to scientifically heal by the unalterable law of the chemistry of life. When we learn the cause of disease, then and not before, will we prevent disease.

Professor Valentin, the well known physiologist, says: "Nature works everywhere with an infinite number of small magnitudes, which can be preceived by our relatively obtuse organs of sense only when in masses. The smallest picture which our eyes preceive proceeds from millions of waves of light. A granule of salt that we are hardly able to taste contains myriads of groups of atoms which no sentient eye will ever view."

LESSON IV.

Phosphate of Iron.

Synonyms—Ferrum phosphate, Ferri Phosphas.

Formula—$Fe_3 (P O_4)^2$.

Phosphate of iron may be prepared by mixing sodium phosphate with sulphate of iron. The salt precipitated by this union is filtered, washed, dried and rubbed to a powder.

The iron phosphate should not be used below the sixth (decimal trituration), as large doses of iron, as in tinctures, have a bad effect on the mucous lining of the stomach, injure the teeth and utterly fail to supply iron to the blood where it is needed to carry oxygen, the life giver.

One red blood corpuscle does not exceed the one hundred and twenty millionth of a cubic inch. There are more than three million such cells in one drop of blood, and these cells carry the iron in the blood. How necessary, then, to administer the salts of iron to hungry cells in the most minute molecular form.

Each one of the twelve inorganic salts has its own sphere of function and curative action. Thus we find the phosphate of iron molecularly deficient in all fevers and inflammatory symptoms.

Health depends on a proper amount of iron phosphate in the blood, for the molecules of this salt have chemical affinity for oxygen and carry it to all parts of the organism. When these oxygen carriers are deficient, the circulation is increased in order to conduct a sufficient amount of oxygen to the extremities with the diminished quantity of iron, exactly as seven men must move faster to do the work of ten. This increased rate of motion of the blood is changed to heat, caused by friction, otherwise known as the "conservation of energy."

This heat, or increase in the temperature of blood, has been named fever, from the Latin word fevre, meaning "To boil out."

The writer fails to see any relevancy between the word fever and a deficiency in iron phosphate molecules in the blood. From Hippocrates to Koch you will not find a true definition of fever outside of the Biochemic theory.

It is not simply the heat that causes distress in a fever patient, but it is the lack of oxygen in the blood due to a deficiency in iron, the carrier of oxygen.

A molecular break in the links of the chain of iron disturbs the continuity of other salts and thus causes more deficiencies. The chloride of potassium (see Lesson V), is usually the first salt called for after the disturbance in iron.

These mighty workers, iron and oxygen, cause all the blood in the body to pass through the heart every three minutes. The lungs contain about one gallon of air at their usual degree of inflation. We breathe, on an average, 1200 breaths per hour; inhale 600 gallons of air per hour and 24,000 gallons daily; and iron and oxygen are the wizards that perform the miracle. When a deficiency in iron occurs, nature—chemical affinity—draws the blood inward from the surface of the body, in order to conserve this life force so that the vital organs, heart, stomach, liver, lungs and brain, may continue to function. But the poor surface circulation allows the pores to close, and thus the waste matter that should escape by this route is turned upon the inner organs, causing exudations, catarrh, pneumonia, pleurisy, etc. But these names are of no consequence. The student will clearly see that iron phosphate is indicated by certain symptoms in whatever part of the organism they may appear. Iron molecules give toughness and strength to the walls of veins and arteries and the minute blood vessels called capillaries (hair-like) and are, therefore, the remedy for hemorrhages.

A child may touch a button that will start a complex machine operating, and yet not understand the science of physics or the mechanism of the machine. So many systems of healing may be the means of starting into action the workmen that may have become dormant. But when the workmen are deficient in the organism, man's body is a chemical formula in operation, it would seem to be the sensible thing to do to furnish the needed chemicals.

There is but one law of chemical operation in vegetable or animal life. When a man understands and co-operates with that operation, he will call into being whatsoever he will; his organism will show forth the glory of omnipresent spirit and its "fearful and wonderful" mechanism will be the crowning glory of earth.

LESSON V.

The Chloride of Potash, or Potassium.

Synonyms—Potassium chloride, Kali Muriaticum, Kali Chloratum, Kali Chloridum, Potassi Chloridum.

Formula—K Cl.

This salt must not be confused with the chlorate of potash, a poison, chemical formula $K.CLO_3$.

Chloride of potash may be obtained by neutralizing pure aqueous hydrochloric acid with pure potassium carbonate or hydrate.

The cell-salt kali-muriaticum (Potassium chloride) is the mineral worker of the blood that forms fibrin and properly diffuses it through the tissues of the body.

Kali mur molecules are the principal agents used in the chemistry of life to build fibrin into the human organism. The skin that covers the face contains the lines and angles that give expression and thus differentiate one person from another.

In venous blood fibrin amounts to three in one thousand parts; when the molecules of Kali mur fall below the standard in the blood, fibrin thickens, causing what is known as pleurisy, pneumonia, catarrh, diphtheria, etc. When the circulation fails to throw out the thickened fibrin via the glands or mucous membrane, it may stop the action of the heart. Embolus is a Latin word, meaning little lump, or balls; therefore, to die of embolus, or "heart failure" generally means that the heart's action was stopped by little lumps of fibrin clogging the auricles and ventricles of the heart.

When the blood contains the proper amount of kali mur, fibrin is functional and the symptoms referred to above do not manifest.

Biochemistry has discovered the fact that the cause of embolus, diphtheria, fibroid tumors and fibrinus exudations are not the result of an over-supply of fibrin itself. These symptoms are due to a deficiency in the potash molecules that work with fibrin, diffuse it throughout the organism and build it into tissue.

LESSON VI.

The Phosphate of Potash.

Synonyms—Potassium Phosphate, Kali Phosphoricum, Potassii Phosphas.

Formula—$K_3 PO_4$.

It may be prepared by mixing aqueous phosphoric acid with a sufficient quantity of potash, hydrate or carbonate, until the reaction is slightly alkaline and evaporating. Triturate to 3d or 6th X.

This salt is the great builder of the postive brain cells. Kali phos. unites with albumen and by some subtle alchemy transmutes it and forms gray brain matter.

When the chemical possibilities of this brain builder are fully understood, insane asylums will go out of fashion.

Nervous disorders of all kinds, sleeplessness, paresis, paralysis, irritability, despondency, pessimism, making mountains out of mole hills, crossing broken bridges that do not exist, and borrowing trouble and paying compound interest on the note—all these and many more abnormal conditions that make life a burden are caused by a break in the molecular chain of this nerve and brain builder.

Man has been deficient in understanding because his brain receiver did not vibrate to certain subtle influences; the dynamic cells in gray matter of nerves were not finely attuned and did not respond—hence, sin, or falling short of understanding.

From the teachings of the Chemistry of Life we find that the basis of brain or nerve fluid is a certain mineral salt known as potassium phosphate, or Kali Phos. Kali phosphate is the greatest healing agent known to man, because it is the chemical base of material expression and understanding.

Anything that prevents the formation of new cells as fast as old cells decay or die disturbs the equilibrium and some pain or other symptom indicates that all is not right. This phenomenon is simply a telegraphic dispatch sent along the nerves to the

brain to inform the Ego, the Throne of Understanding, that a deficiency exists—that the material necessary to keep up the processes of life is not sufficiently supplied at a certain place.

And why is it not supplied? Health is that condition of the system where a certain proper degree of heat is maintained, where there is a proper blending of positive and negative electrical influences, and, where every tissue of the body is properly supplied with the right amount of blood, containing all of the elements requisite for building the new cells. This condition can be secured or maintained only by a proper amount of suitable physical exercise, a proper amount of food of a right kind, taken at reasonable intervals, and a judicious adaptation of the clothing to the temperature and occupation.

Anything which breaks up this balance injures, just according to the degree of the adverse influence. If over-eating, the alimentary canal becomes clogged with undigested food, the nutrition, which should be set free to transude through the walls of the intestines to be taken up by the absorbents and carried into the circulation, remains in the fibre of the food and passes out of the body, and, of course, a deficiency at once exists in the blood.

Any disturbance in the molecular motion of these cell-salts in living tissues constitutes disease. This disturbance can be rectified, and the equilibrium re-established by administering a small dose of the same mineral salts in molecular form.

The Biochemic System of Medicine is founded on physiology, anatomy, cellular pathology and chemistry, as set forth by Schuessler, Huxley, Tyndall, Virchow, Liebig, Valentin, Goullon, Moleschott and Walker, of Europe, and many noted scientists of our own land. Professor Moleschott, of the University of Rome, says in his work, The Circulation of Life: "The structure and vital power of the organs are conditional upon the necessary quantity of the inorganic salts of the blood."

Dr. Schuessler says that these words awakened in him the idea of employing for healing purposes the inorganic salts alone. Schuessler says in his Therapeutics: "My sytem or method of procedure is direct Biochemistry, because I use only tissue cell-salts, substances which are homogeneous to those contained in the diseased tissue. These salts, used properly, in a proper potency, cure all curable disease."

LESSON VII.

Sulphate of Potash.

Synonyms—Potassium Sulphate, Kali Sulphos, Potassae Sulphos, Kali Sulphate.

Formula—K_2 SO_4.

The microscope reveals the fact that, when the body is in health, little jets of steam are constantly escaping from the seven million pores of the skin. The human body is a furnace and steam engine. The stomach and bowels burn food by chemical operation as truly as the furnace of a locomotive consumes by combustion. In the case of the locomotive the burning of coal furnishes force which vibrates water and causes an expansion (rate of motion) that we name steam.

The average area of skin is estimated to be about 2000 square inches. The atmospheric pressure, being fourteen pounds to the square inch, a person of medium size is subject to a pressure of 40,000 pounds.

Each square inch of skin contains 3500 sweat tubes, or perspiratory pores (each of which may be likened to a little drain tile) one-fourth of an inch in length, making an aggregate length of the entire surface of the body of 201,166 feet, or a title for draining the body nearly forty miles in length.

Let me repeat, for it is very important, the stomach is the furnace of man's body, and, by the process of digestion, burns up food and furnishes force to run the human engine, and thus enable it to inhale air, the material for blood, as water is the material for steam. In the manufacture of blood, through the complex operation of air passing through lung-cells, arteries, etc., a certain amount of water is changed to steam, a portion of which must escape through the safety valves provided by Divine Intelligence for that purpose. Sometimes the pores become clogged, and prevent the steam from escaping; then the vibration of the body changes and the person is sick. In many cases

a disturbance in oil is the cause of the trouble. Potassium sulphate has an affinity for oil; it is the maker and distributor of oil. When this salt falls below the standard in quantity, in the human organism, oil becomes non-functional—too thick, and thus clogs the pores.

And does it not seem strange that medical science, that boasts of such great progress, can invent no better term than "bad color" for these chemical results?

Kali Sulph. is found in considerable quantities in scalp and hair. When this salt falls below the standard, dandruff or eruptions, secreting yellowish, thin, oily matter of falling out of hair, is the result.

Kali Sulph. is a wonderful salt, and its operation in the divine laboratory of man's body, where it manufactures oil, is the miracle of the chemistry of life.

Oil is made by the union of the sulphate of potassium (Potash) with albuminoids and aerial elements.

A deficiency of sulphate of potash in the molecules is the cause of oily, slimy, yellowish exudations from any orifice of the body, or from any glandular swellings, abscesses, cancers, etc.

LESSON VIII.

Phosphate of Magnesia.

Synonyms—Magnesium Phosphorica.

Formula—$Mg_3\ PO_{4\ 2}$

This cell-salt may be made by mixing Phosphate of Soda with Sulphate of Magnesia. This salt is found chiefly in the white fibres of nerves and muscles. The tissues of nerves and muscles are composed of many very fine threads or strands of different colors, each acting as a special telegraph wire, each one having a certain conductile power or quality, i. e., special chemical affinity—for certain organic substances, oil or albumen, through and by which the organism is materialized and the process or operations of life are carried on. The imagination might easily conceive the idea that these delicate infinitesimal fibres are strings of the Human Harp, and that molecular minerals are the fingers of infinite Energy, striking notes of some Divine Anthem.

The white fibres of nerves and muscles need the dynamic action of Magnesia Phosphate, especially to keep them in proper tune, or function, for, by its chemical action on albumen, the special fluid for white nerve or muscle fibre is formed. When the supply of this salt falls below the standard, cramps, sharp shooting pains, or some spasmodic condition, prevails. Such symphoms are simply calls of nature for more magnesia.

The human body is composed of perfect principles, gases, minerals, molecules or atoms; but these builders of flesh and bone are not always properly adjusted.

The planks or bricks used in building houses may be endlessly diversified in arrangement and yet be perfect material. Therefore, we must conclude that symptoms of disease are dispatches sent to the brain—the throne of understanding—calling for the worker, the builder, needed to carry on Life's work in flesh. Cases of Chorea (St. Vitus' dance) are cured by the proper use of magnesia phosphate. This salt is the great remedy for

nearly all heart troubles, except embolus. (See Kali Mur., Lesson V.)

The white fibres in the delicate strands that compose the tissue of nerves are controlled by the molecules of magnesia; when these workers are deficient in amount, these live wires contract or cramp up in knots, of course, infinitely small, the effect of which is a sharp shooting pain, as in so-called neuralgia, or sciatica. The word neuralgia is from (a) Latin for nerves (b) Greek for pain, and therefore simply means nerve pain. English expresses the effect quite as well as other languages. But the idea generally prevails that neuralgia means a thing unknown and undefinable that causes the pain, and that the name of this unknown thing is neuralgia.

The pain is simply a dispatch, or words, asking for magnesia phosphate.

A deficiency of this salt in the muscular and nerve tissue of the walls of the stomach causes contraction, cramps, which reduces the cavity of the stomach. In order to meet this condition and prevent a collapse, such as is formed by natural chemical process from material at hand and by expansion, magnesium phosphate produces a counter-force that wards off more serious results. Magnesium phosphate relieves such conditions immediately, thus demonstrating the theory that to supply the deficient tissue-builder is the natural method of cure. The phosphate of lime often supplements magnesia. (See page 95, "The Biochemic System of Medicine.")

This wonderful salt is the true antispasmodic remedy. It has cured cases of chorea, or St. Vitus' dance, in from two to four weeks. For all heart troubles caused by distension of the cardiac portion of the stomach, thus interfering with the action of the heart, it is the sovereign remedy.

Dr. Baericke, one of the leading homeopathic physicians of the Pacific Coast, says: "Magnesia phosphate is a magnificent remedy in all spasmodic diseases."

It is plainly evident that the wonderful fluids of the human body are manufactured in the chemical laboratory of the organism. The particles of magnesia evidently contain within themselves the power and potency to create the white fibre nerve fluid by using albuminous substances as a basis, and then calling

to its aid the spirit of life, oxygen. Each one of the inorganic salts knows how to make some fluid or tissue of the human machine. "And the tree bore twelve manner of fruits and its leaves were for the healing of the nations."

Like the phosphate of potash (see Lesson VI), magnesia phosphate is a nerve and brain salt, and, when we consider the wonders of the brain and its marvelous mechanism, we must recognize the great importance of the wizard workmen which labor for three score and ten years without an instant rest.

LESSON IX.

Sodium Chloride.

Synonyms—Natrum muriaticum, Sodii Chloridium, Chloruretum of Sodicum, Common table salt.

Formula—Na Cl.

A combination of sodium and chlorine forms the mineral known as common salt. This mineral absorbs water. The circulation or distribution of water in the human organism is due to the chemical action of the molecules of sodium chloride.

This inorganic cell-salt is the bearer and distributer of water.

Sodium chloride must be triturated up to the 3d or 6th biochemic potency before using as an agent to supply deficiencies in the water carrier molecules arising from a lack of this salt.

Water constitutes over 70 per cent of the human body, therefore, the carriers of water must be in like proportion. There is more sodium chloride in the ashes of a cremated body than any of the 12 mineral salts, except the phosphate of lime, which composes 57 per cent of bone structure.

Through its affinity for water, this salt assists in carrying on the process of life in the human organism as well as in all vegetable tissue.

When there is a deficiency in the molecules of the water bearer, salt, the molecular continuity of water is broken, and, as a result, too much water will appear at a certain point and corresponding dryness or lack of water at other places. Example: Watery discharge from nasal passages and constitpation of the bowels.

Sunstroke and delirium tremens are caused by a break in the supply of this salt, which causes water to press or crowd the membranes of the cerebellum (lower brain), and thus prevent the magnetic vibrations from the cerebrum (upper brain) from passing to the solar plexus, or central brain.

Crude soda cannot be taken up by mucous membrane absorbents and carried into the circulation. The sodium molecules found in the blood have been received from vegetable tissue which drew these salts from the soil in high potency. The mineral, or cell-salts, can also be prepared and are prepared in biochemic or homeopathic potency as the trituration of Nature's laboratory in the physiology of plant growth, and then, thoroughly mixed with sugar of milk and pressed into tablets ready to be taken internally, supply deficiencies in the human organism. A lack of the proper amount of these basic mineral salts, twelve in number, is the cause of all so-called disease.

Common table salt does not enter the blood, being too coarse to enter the delicate tubes of mucous membrane absorbent, but this salt does distribtue water along the intestinal tract.

Professor Leibig says in his Chemical Letters, that muriatic acid, when diluted a thousand fold with water, dissolves, with ease, at the temperature of the body, fibrin and gluten, and this solvent power does not increase, but diminishes, if the proportion of acid in the dilution be increased.

Air contains 78 per cent of nitrogen gas, believed by scientists to be mineral in ultimate potency. Minerals are formed by the precipitation of nitrogen gas. Differentation is attained by the proportion of oxygen and aqueous vapor (hydrogen) that unites with nitrogen.

A deficiency in sodium chloride causes the water in the blood serum to become inert and non-functional. By its affinity for water, sodium chloride assists in the biological operation in blood and tissue.

As will be seen in Lesson XI, sodium sulphate eliminates an excess of water in the blood and thus regulates the supply; while sodium chloride properly distributes water in the physiology of animal or vegetable forms.

LESSON X.

Phosphate of Soda.

Synonyms—Natrum phosphate, Sodium phosphate, Natri Phosphate, Phosphos Natricus, Sodae Phosphate.

Formula—Na_2HPO_4; $_{12}$ H_2O; Na_3 PO_4X $_{12}H_2O$.

This alkaline cell-salt is made from bone ash or by neutralizing orthophosphoric acid with carbonate of sodium.

Sodium, or natrum, phosphate holds the balance between acids and normal fluids of the human body.

Acid is organic and can be chemically split into two or more elements, thus destroying the formula that makes the chemical rate of motion called acid.

Acid conditions are not due to an excess of acid in the blood, bile or gastric fluids. Supply the alkaline salt sodium phosphate, and acid will chemically change to normal fluids.

A certain amount of acid is necessary, and always present in the blood, nerve, stomach and liver fluids. The apparent excess of acid is nearly always due to a deficiency in the alkaline, salt.

Acid, in alchemical lore, is represented as Satan, Saturn, while sodium phosphate symbolizes Christ, Venus. An absence of the Christ principle gives license to Satan to run riot in the Holy Temple. The Advent of Christ drives the exile out with a whip of thongs. Reference to the temple, in the figurative language of the Bible and New Testament, always symbolizes the human organism. "Know ye not that your bodies are the Temple of the living God?"

Solomon's temple is an allegory of the physicial body of man and woman. Soul—of man's temple—the house, church, Beth or temple made without sound of "saw or hammer."

Hate, envy, criticism, jealousy, competition, selfishness, war, suicide and murder are largely caused by acid conditions of the blood, producing changes by chemical poison and irritation of the brain cells, the keys upon which Soul plays "Divine Har-

monies" or plays "fantastic tricks before high Heaven," according to the arrangement of chemical molecules in the wondrous laboratory of the soul.

Without a proper balance of the alkaline salt, the agent of peace and love, man is fit for "treason, stratagem and spoils."

The chemistry of life points to the reason why man is unbalanced. Poise of tissue, nerve fluid, blood and brain cells, as well as muscular fibre, are conditions precedent to mental or soul poise. A man thinks and acts according to the organism in or through which the Ego operates.

The basis of the human body are twelve minerals, lime, iron, potash, silica, sodium, magnesia, etc., etc. They are found in the ashes of a cremated body, or, in reality, constitute the ashes. Before man ceases to be sick, before envy, strife, hatred, competition, selfishness, war and murder cease on earth, man must build his body on a plan that will express mind on the plane of altruism and love.

The perfectly balanced body will enable mind to cognize oneness of being. From this concept comes peace on earth and good-will between man and man.

The knowledge of Life Chemistry will bring man to his Divine estate in the Kingdom of Harmony and Love. This Kingdom is forming in the chemicalizing mass of God's creative compounds. Out from the chemistry of elements, principles, monads and molecules; out of oxygen, hydrogen, nitrogen, carbon, helium, unranium, radium, aurium, argentum, sodium, potassium and iron—out from molecules composing the body of universal energy, a man and woman will be born—real Sons of God—who will bear away the sins of the world.

LESSON XI.

Sulphate of Soda.

Synonyms—Natrum Sulphate, Sodium Sulphuricum, Sodae or Sodii Sulphas, Glauber's Salts.

Farmula—Na_2 SO_4 10 H_2O.

This may be obtained by the action of Sulphuric acid on sodium chloride (common salt).

This cell-salt is found in the intercellular fluids, liver and pancreas. Its principal work is to regulate the supply of water in the human organism.

The blood becomes overcharged with water, either from the oxidation of organic matter or from inhaling air that contains more aqueous vapor (water) than is required to produce normal blood. This condition of air is liable to prevail whenever the temperature is above 70 degrees.

One molecule of nat. sulph. has the power, chemical intelligence, to take up and carry away two molecules, or twice its bulk, of water. The blood does not become overcharged with water from water taken into the stomach, but from the water lifted by expansion caused by heat above 70 degrees and held in the air and thus breathed into the arteries through the lungs. By the above we see that there is more work for this salt in hot weather than during cold weather. So-called malaria, Latin for bad air, is due to a lack of this tissue salt. Water, lifted from swamps or clear streams or lakes by the action of the sun's heat, is the same, for heat does not evaporate and lift poisonous, disintegrating organic matter from a swamp or marsh, but the water only.

Therefore, it is not some impurity in the air that causes chills, etc., but an oversupply of water which thins the bile and distributes it through the organism. Nature's effort to get rid of the surplus water by nervous, muscular and vascular contraction, on the principle of wringing water from a cloth, causes the spasm called chills. Proof of this theory is found in the fact

that perspiration follows the chill. It generally requires about forty-eight hours to again overcharge the blood and bring on another chill.

Cold dry air always cures chills, and be it known that all cold air is dry air. The cure for chills when cold air cannot be had is sodium sulphate in biochemic potency. Yellow fever is caused by too much water in bile and other liver fluids. These fluids are distributed through the system, and in their union with oil, albumen, etc., become vitiated and cause the yellow skin.

Sodium Sulph. in crude form, is known as Glauber's Salts, and is too coarse to be taken up by the mucous membrane absorbents and carried into the circulation; it must be triturated with sugar of milk, according to the biochemic method, up to the 3d or 6th decimal before using a remedy to supply the blood. Glauber's Salts, crude sodium sulphate, acts as a cathartic, and cathartics are never used in the biochemic system of healing.

When man learns to keep his blood at the proper rate of motion by the proper dynamos—the mineral salts—he will not fear fevers, microbes, mosquitoes, nor devils.

LESSON XII.

Silica.

Synonyms—Silica, silic, oxide, white pebble or common quartz. Chemical abbrevitaion, Si.

Made by fusing crude silica with carbonate of soda; dissolve the residue, filter and precipitate by hydro-chloride acid.

This product must be triturated as per biochemic process before using internally.

This salt is the surgeon of the human organism. Silica is found in hair, skin, nails, periosteum, the membrane covering and protecting bone, the nerve sheath, called neurilemma, and a trace is found in bone tissue. The surgical qualities of silica lie in the fact that its particles are sharp cornered. A piece of quartz is a sample of the finer particles. Reduce silica to an impalpable powder and the microscope reveals the fact that the molecules are still pointed and jagged like a large piece of quartz rock. In all cases where it becomes necessary that decaying organic matter be discharged from any part of the body by the process of suppuration, these sharp pointed particles are pushed by the marvelous intelligence which operates without ceasing, day and night, in the wondrous human Beth, and like a lancet cuts a passage to the surface for the discharge of pus. Nowhere in all the records of physiology or biological research can anything be found more wonderful than the chemical and mechanical operation of this Divine artisan.

The bone covering is made strong and firm by silica. In case of boils or anthrax carbuncle, the biochemist loses no time searching for "anthrax bacilli," or germs, nor does he experiment with imaginary germ-killing serum, but simply furnishes nature with tools with which the necessary work may be accomplished.

Silica gives the glossy finish to hair and nails. A stalk of corn or straw of wheat, oats or barley would not stand upright except they contained this mineral.

THE COMING MAN

Out of the chemicalizing mass, out of the chemistry of elements, principles, minerals and monads—out of oxygen, hydrogen, nitrogen, carbon, helium, uranium, radium, arum, argentum, potassium sodium and iron—out from these molecules composing the substance of God a new man will be born, a real Son of God who will bear away the sins of the world. I see this form—physical body materializing out of the fomentation of life's creative compounds.

Now hasten, vibration from Uranus, and vitalize the Etheric Substance that sweeps through the rivers of Eden—the veins and arteries that carry the red cells of omnipresent life. Touch with thy fingers of fire, Golden Haired Apollo, the keys of the new man's wondrous brain until every atom and fiber of the holy temple joins in the Anthem of the stars. And Neptune, thou planet of Realization; at last thy hour has struck. Patient as the Divine Mother, thou hast waited for the man.

Lift thy Trident, O Trinity of Life, Liberty and Love, and send to Earth thy pent up vibrations of glory:

Lo; the Aquarius Age;—The new Heaven and new Earth;—

The Co-operative Commonwealth;—The Brotherhood of man.

THE END

LIBRARY OF CONGRESS
00026102078